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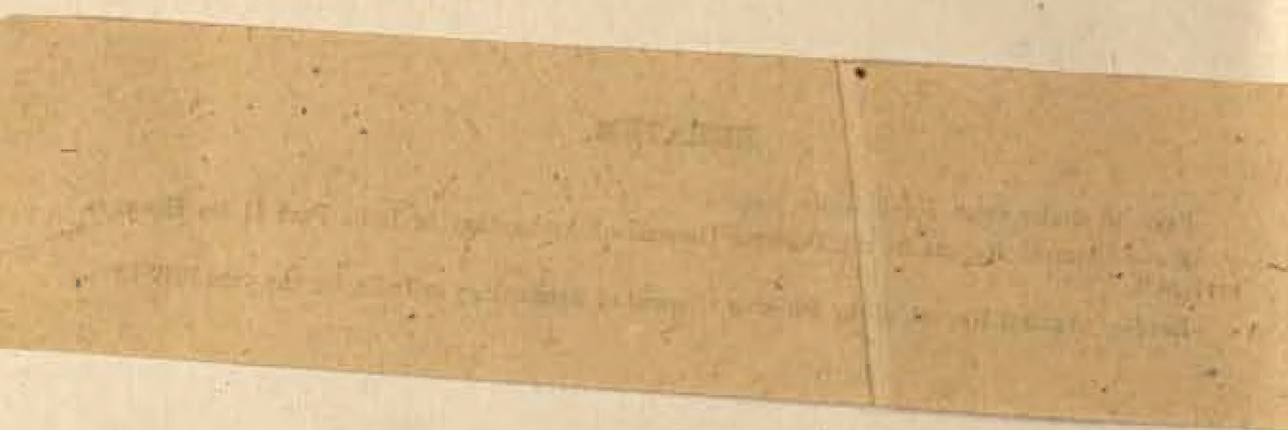

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## ERRATUM.

Page 45 under head Publications item 2.

*For*—" Annual Report of the Director General of Archæology in India Part II for the year 1917-18 ".

*Read*—" Annual Report of the Director General of Archæology in India for the year 1917-18 ".



# ANNUAL REPORT

OF THE

# Director-General of Archæology in India

## 1919-20

BY

SIR JOHN MARSHALL, Kt., C.I.E., Litt.D., M.A., F.S.A., Hon. A.R.I.B.A., Ph.D.,
Director-General of Archæology in India.














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Conservation. (Muhammadan and British Monuments, Northern Circle.)

ON the conservation of Muhammadan and British monuments in the Northern Circle and on the upkeep of gardens connected with them expenditure during the year 1919-20 amounted to Rs. 1,35,190, of which Rs. 45,698 was spent in the United Provinces, Rs. 31,668 in the Punjab and Rs. 57,824 in the Delhi Province. In the last mentioned sum was included a donation of Rs. 11,650 made by H. E. H. the Nizam towards the repair of the Dargah of Hazrat Nizam-ud-din Auliya, but as a set off against this very welcome gift, the grant made by Government was some Rs. 14,000 less than in the previous year. In this connection it is worth while comparing the present year's figures, which represent those for the first year after the war, with the figures before the war. In the United Provinces the average expenditure over the five years before the war (1909-10 to 1913-14) amounted to Rs. 59,753 and in the Punjab to Rs. 65,678. In the Province of Delhi, which was only constituted as a separate province in 1912, the average for the three years before the war amounted to Rs. 79,587. From these figures it appears that about Rs. 20,000 less has been expended on conservation in this Circle during the year 1919-20 than before the war. But the amount of work represented by this sum is unfortunately very considerably less than would appear from the mere figures. Since the year 1915 rates in the three provinces have risen enormously, in most cases quite 50 per cent., and the amount of conservation work that can now be carried out is proportionately less. As a result, it has been possible during the past year to do little more than keep in proper repair such monuments as have already been conserved, while postponing other undertakings until such time as more funds can be provided. How pressing is the need of a more liberal programme may be gauged from the fact that in the Northern Circle (Muhammadan and British monuments) alone some 120 estimates for special repairs amounting approximately to seven lakhs of rupees were awaiting allotment of funds at the close of the year under review.

United Provinces.

In the United Provinces a sum of only Rs. 10,722 was allotted for special repairs, one quarter of which was spent on the Chattar Manzil (United Service

Club) at Lucknow. At Agra, a *chattri* to mark the site of the tomb of the Empress Jodh Bai, wife of the Emperor Jahangir and mother of Shahjahan, was constructed from designs made in the Archæological Superintendent's office. The funds for this work were provided by the Maharajadhiraja of Burdwan, who has more than once made generous gifts for our archæological projects. The original tomb, along with other *nazul* buildings around Agra, was sold by Government many years ago, and the building has since been entirely despoiled of its materials, only the foundations being left. These, indeed, had to be searched for and exposed before the exact position of the old crypt could be determined. As the site lay in the middle of the local Indian Defence Force rifle range, it was not possible to erect the commemorative *chattri* exactly over the remains of the old tomb, and it has accordingly been placed in the immediate vicinity, its location in relation to the old tomb being recorded in an inscription in English as well as in the vernacular set up in the *chattri*. The ancient gateway known as the Dakhni Darwaza, leading originally to the contemporary Mughal Sarai immediately south of the Taj Mahal forecourt at Agra, but now to the village of Tajganj, received some much needed repair. This old Sarai, I may remark parenthetically, appears in an old plan of the Taj, now in the Taj Museum, and it is there shown divided into four separate *muhallas* by main streets crossing at right angles, their intersection being merged in a central octagonal "place," the four gateways of which, albeit in a ruined condition, are still to be found in the interior. A picturesque Mughal pavilion, rising from the centre of a large tank at Itimadpur, in the Agra District, and known as the Burhia-ka-Tal, was also put into repair. A feature which lends an added interest to this building is the numerous names of early visitors inscribed on the plastered walls in the careful copper-plate script of a century ago; one of them, contributed by a "Peter Beaham, His Majesty's 22nd Regiment" is dated 1807, some four years after the Agra District came into the possession of the East India Company. The repair of the old wall running along the bank of the Jumna river, west of the Taj Mahal, and protecting a late Mughal garden called the Bagh Khan-i-Alam, now used as a nursery in connexion with the Taj garden, was completed. The brickwork of the retaining wall and its bastions was underpinned, and some inner rooms were repaired and their roofs made watertight. Jungle was removed, and a stepped masonry fall constructed to carry away rainwater from the garden to the river. The total cost of this work amounted to Rs. 7,354. At Chunar, in the Mirzapur District, some further conservation works have also been commenced during the year on the tomb of Iftikhar Khan (Plate I, *a*), a *Nazim* in the reign of Jahangir. Before being taken over for conservation the tomb was in the occupation of the Opium Department. Among annual repairs may be noted particularly the expenditure of Rs. 1,517 for the maintenance of the electrical installation at the Taj Mahal; of Rs. 2,663 for the upkeep of the Taj and subsidiary buildings; of Rs. 2,816 for the maintenance of the historic buildings and pay of the staff in the Agra Fort; of Rs. 3,266 for maintenance and staff at Akbar's and Mariam's tombs at Sikandarah, and Rs. 6,708 for annual repairs and staff at Fatehpur Sikri. To these must be added a sum of approximately

Rs. 6,000 for repairs to historic buildings in Lucknow, many of which are still in use as Government Offices, *e.g.*, a Post Office, a Tahsil, a Library and a Club.

Punjab (Muhammadan and British Monuments).

In the Punjab, Rs. 20,170 were expended on special repairs including a sum of Rs. 500 for the acquisition of the land at Attock on which the old Mughal Sarai, known as the Begam-ki-Sarai, stands, the conservation of which is about to be commenced at an estimated cost of Rs. 2,606. The Sarai, though badly in ruins, is an interesting relic of the old *Badshahi* highway, which, following very closely the present Grand Trunk Road, stretched originally from Attock across India into Bengal, and was furnished at intervals with wells, *kosminars,* and *caravansarais* erected to serve the needs of the traveller. At Hasan Abdal, also in the Attock District, the conservation of the "Hakim's Tomb" (Plate I, *b*) in the vicinity of the walled enclosure containing the reputed tomb of Lalla Rukh, was taken in hand, cracks in the old fabric being filled and underpinning of the tomb and its *chabutra* carried out. Two small tanks adjacent, one of them containing fish which are locally much revered, were cleaned out, the fish restored, and jungle and vegetation in the vicinity removed. This site is noteworthy as being one of the camping grounds of the Mughal Court on its journeys to and from Kashmir, and in those days it was much celebrated for its beauty. The only large work that has been in progress this year in the Punjab was at Shahdara, near Lahore, where the badly undermined garden walls of the tomb of Asaf Khan (the celebrated *Wazir* of the Emperor Jahangir) were suitably underpinned and buttressed. This wall, it may be mentioned, adjoins the Akbari Sarai, from which entrance is gained to Jahangir's Tomb enclosure. The repair of Asaf Khan's Tomb itself was partially carried out several years ago, but the large garden in which it stands has remained sadly in need of attention. In the near future it is hoped to restore the original features of the old garden and to repair its old brick causeways and *chabutra,* laying out the area in an attractive manner and in such a way as to preserve its old Mughal character. Out of the total estimated cost of Rs. 38,549 for the repair of the above mentioned wall, Rs. 13,200 were spent in the year under report. The erection of the small monument designed by the Consulting Architect to the Punjab Government to mark the site of the Buddhu-ka-Awa (Buddhu's Kiln) on the Shalimar Road at Lahore was brought to completion. Buddhu, whose tomb (a small *chattri* in the immediate vicinity) is now in a ruined condition, was brickmaker at the Court of Jahangir, and his services were much in demand during the building of that Emperor's city of Lahore. Special repairs to the oil engines used for watering the Hazuri Bagh and Shalimar gardens had also to be executed, and in the new District of Sheikhupura, near Lahore, the task of repairing the Great Tank and *Haran Manara*—the hunting seat of Jahangir, constructed to commemorate the death of that emperor's favourite antelope—were brought to a finish. The works achieved comprised, among other items, the rebuilding of the walls of the great tank where they had collapsed through inundation and the ensuing subsidence of the adjacent ground; the rebuilding of the greater part of one of the corner *baradaris;* minor repairs to the central pavilion in the tank and its

causeway approach; and the repair of the dilapidated steps ascending the tall *manara* or tower. A simple iron railing has also been placed around the top of the latter as a protection to visitors viewing the site from this vantage point. In conserving this old fabric endeavour has been made to preserve the old character of the monument by keeping the repairs as inconspicuous as possible; and, when the scheme for the lay-out of the surrounding land in accordance with Mughal principles of garden design has been carried into effect, the site should add considerably to the amenities of the new District Headquarters, and be appreciated by visitors from Lahore, of which it is within easy motoring distance.

**Delhi (Muhammadan and British Monuments).**

In the Delhi province Rs. 22,117 were spent on special works, of which, as noted above, Rs. 11,650 were presented by H. E. H. the Nizam for special repairs to the Dargah of Hazrat Nizam-ud-din Auliya (Plate II. *a*), famous in the Courts of the Khalji and Tughlaq kings. The roof and verandah of the shrine were made watertight, spreading arch-spandrels over the columns at the corners were secured with long metal clamps, and disturbed *chhajja*-slabs reset; while the marble floor of the interior was relaid, and thick accumulations of whitewash were removed to expose again the original redstone of the *jali* screens enclosing the court. The redecoration of the shrine on the basis of the old, and largely obliterated, painted designs was a prominent item of the work, and was undertaken at the special request of the *Sajjada Nashin* who approached H. E. H. the Nizam's Government for funds for this purpose. This work, which was carried out by the Public Works Department under the supervision of Mr. Page, went somewhat beyond the limits of legitimate conservation as recognised by the Archæological Department. This must not infrequently happen in the case of sacred monuments which are still "living," but it is manifestly more in the interest of the building that the restorations required by the Trustees should be carried out under expert guidance than that our assistance should be withheld because such restorations are not wholly approved on Archæological grounds. A good deal of necessary repair has also been in progress at the Tomb of Humayun. The old ruined Mughal cattleyard here has been reconstructed to accommodate the bullocks used in the maintenance of the garden, and urgent repairs needed to the enclosure walls have been commenced. The north wall of the tomb enclosure particularly was in a very dangerous state, the earth beneath its foundations outside having been eroded away to a depth of some 6 feet by water action in the rains, so that this heavy wall rested merely on the crumbling edge of an almost vertical earthen bank. The *nala* so formed has now been filled in with earth to the original level, and the flow of water diverted to a less harmful channel. Work has also begun on the river-front terrace here, which is to be levelled and laid out on Mughal principles from designs supplied by the Archæological Superintendent. Altogether Rs. 7,984 were expended on the conservation of this tomb.

The illustration in Plate II *b* shows the sun-dial erected at the Qutb in memory of 2nd-Lieutenant Gordon Sanderson, late Superintendent in this Circle, who was killed in action in France early in the war. At the Qutb also a small

sum was spent on the sorting of stones, carved stones being retained and the remainder discarded. A wall mosque of the Early Pathan Period, richly ornamented with plaster designs, in the village of Mehrauli, having been lent to Government *sine die* by the owner, a stone wall was erected to separate it from the compound of the former's house. At the Purana Qila some *chhajja* slabs fallen from the Sher Mandal were renewed and repairs were done to a doorway of the Khair-ul-Manazil. Here, too, the small underground pavilion which was recently discovered was put into a state of repair chiefly by means of underpinning, filling open joints, removing earth and débris from the interior and repairing the terraced floor. At Delhi a considerable sum has to be expended annually on the upkeep of the gardens connected with Archæological buildings. The report of the Horticultural Superintendent shows that this year a sum of Rs. 32,852 was spent in this manner, although included in that sum are some minor improvements to the gardens latterly laid out at Hauz Khas, where the Emperor Firoz Shah's Tomb is situated, and at Humayun's Tomb. It is to be regretted, though, that owing to lack of good water at the last mentioned monument real success in gardening here is at present almost impossible to attain.

Hindu and Buddhist Monuments (Northern Circle) Punjab.

Of conservation among Hindu and Buddhist Monuments in the Northern Circle, there is relatively little to be chronicled. Special repairs were carried out only to the temples in the ancient Hindu Fort at Amb and at the temple and gateway of Malot, in the Salt Range. For the temples at Amb an estimate amounting to Rs. 3,750 has been prepared and it is expected that the work will be put in hand in the near future. At Malot the original plinth of the temple had been covered up by a casement erected around it by the Public Works Department. This was removed during the year 1918-19 and a considerable portion of the old basement was found intact, only a few of the stones having been damaged or otherwise tampered with. During the year 1919-20 this plinth was repaired and stones that were found badly worn or crushed were replaced with new ones of the same kind and size and colouring. Another important item of work carried out during the past year was the clearance of débris for a distance of about 50 feet on all sides of the temple. Both the gateway and the temple at Malot had separate flights of steps, but neither has survived, and a proposal to restore them was negatived, since, although it is to be presumed that the stairs must have been of the same general type as those in Kashmir temples, it was impossible to be sure of this point, and until further *data* can be obtained, it seemed better to replace the old steps with simple ramps of earth rather than run the risk of an incorrect restoration.

Altogether a sum of Rs. 1,158 was expended at this site during the year, in addition to the money spent before, and it is now reported that more than half the task proposed has been completed.

United Provinces.

Of all the monuments at Deogarh the most important archæologically is the Gupta temple. Around the compound of the monument a wall was erected to prevent the ingress of cattle and protect the small shrines which had been brought to light during the previous year's excavations. The spire of the temple itself has unfortunately almost entirely collapsed and the heavy blocks of stone

composing it are now heaped mostly upon the roof. The clearance of this débris is one of the most pressing requirements at this site, but before this can be done a strong scaffolding will have to be erected. The bamboo scaffold put up in 1918-19 was not sufficiently strong for the purpose, and, as the necessary arrangements for a stronger scaffolding had not been made in time, this clearance could not be undertaken in the year under review.

Another much needed measure of repair at this temple is the conservation of the retaining wall of the plinth on which the temple stands. Some of the missing stones were recovered during the excavations mentioned above. But Mr. Sahni has not yet decided how much of the whole will have to be restored. On the Jain temple in the Fort at Deogarh all conservation work is for the moment in abeyance owing to want of funds. These the Jain community of the Jhansi District have agreed to provide; but owing to the prevalence of famine in the District, the work has had to be postponed until a more suitable opportunity offers itself. At Sarnath near Benares the preservation of the excavated monuments was continued. One of the important items on the programme here is the erection of a stone pavilion over the Asoka pillar. On this particular work Rs. 604 were expended during the year but the work could not be completed. The structure was, however, built up to the plinth level and the requisite stones for the superstructure were brought to the site and were being dressed at the end of the year. Other improvements consisted in the main of clearing débris from the trenches and removing trees that had taken root inside them.

**Frontier Circle.**

Conservation of the important monastic remains on the summit of the Takht-i-Bahi hill north of Mardan which has been in abeyance for the last few years owing to the war, was resumed in December 1919 and continued until April 1920. The north wall of the Hall of Conference being in a very unstable condition owing to cracks and fissures, has been rebuilt to a height of 8 feet in order to consolidate the structure, while in the Monastic Quadrangle the uneven and jagged tops of the walls have been repaired and the previous gaps filled in to the height of the highest adjoining portions. Certain double-domed chapels on the north side of the Court of Many Stupas which were in need of repairs have been conserved in the same way as similar chapels in the Court of the Main Stupa, and their arches and circular domes have been repaired as far as possible. The interior wall of another chapel on the south of the same court, which was being destroyed by damp, has been saved from further decay by preventing the percolation of rain water from the back.

At Jamalgarhi the detailed recommendations made by Mr. Hargreaves in February 1920 could not be taken in hand until considerable preliminary clearance had been effected. In the course of this clearance, in which substantial progress has been made during the year under review, the bases of five columns of stone and *kanjur* were disclosed, one with a torus and scotia base moulding.

At Shahji-ki-Dheri near Peshawar City the trenches opened in 1908 and 1909 were filled in and levelled over with a view to handing back this site to its owners in a condition permitting of cultivation as before. It is much to be

regretted that this course had to be taken, but it was found impossible to acquire the site except at an exorbitant valuation and there was no other way of putting an end to perennial disputes in regard to the compensation to be paid for the loss of theoretical crops.

**Western Circle.**

During the year under review the Local Government's contribution towards the conservation of ancient monuments in the Bombay Presidency was doubled. For several years past the grant received from the Local Government had been Rs. 30,000 out of which about two-fifths were spent on current repairs and the maintenance of monuments. In 1918-19, Lord Willingdon, then Governor of Bombay, raised the contribution to Rs. 40,000 and the Government of India promised to supplement this grant by an annual contribution of Rs. 10,000. As this increased amount did not suffice to meet the cost of repairing even one-tenth of the monuments which are in urgent need of repairs, His Excellency Sir George Lloyd, Governor of Bombay, decided to raise the Local Government's contribution to Rs. 80,000. The Government of India also contributed Rs. 18,500 as a grant-in-aid for this year. In addition to the increased annual contribution of Rs. 80,000 the Government of Bombay sanctioned a special grant of Rs. 50,000 to be spent in improving the surroundings of ancient monuments in Bijapur City. The total amount received for the conservation of ancient monuments in the Bombay Presidency was thus Rs. 1,48,500. Out of this amount Rs. 1,34.688 were spent and Rs. 13,812 had to be surrendered for the reason that many of the Executive Engineers could not utilize the full amount sanctioned in the case of some of the ancient monuments, as the Government order sanctioning the grant for conservation was not received until late in November. Out of the amount spent Rs. 1,15,997 were utilized on special repairs or original works, the balance of Rs. 18,691 being devoted to annual repairs. Among special repairs the most important were those carried out at Bijapur on which a sum of Rs. 45,388 was spent. The larger part of this sum was applied to the removal of unsightly heaps of débris from the neighbourhood of ancient monuments, the largest item of expenditure being at the tomb of Sultan Muhammad Adil Shah popularly known as the Gol Gumbaz. This monument, which possesses one of the biggest domes in the world, had been partially repaired some years ago, but for want of funds it has never received the care which it deserves. Thus the massive and elaborately carved *chhajja* had been repaired, or rather restored, on one side only, while on the remaining sides it is dropping to the ground piece by piece, and though this monument is one of the most magnificent in the whole of India it had remained hitherto without even a compound wall. On account of the local scarcity of labour towards the end of the year, this wall unfortunately could not be finished, but the entire precincts, nevertheless, were cleared of prickly pear and cactus and the heaps of ruins of mud huts, which had accumulated for centuries in the courtyard and the vicinity of this noble tomb, were excavated and removed. The compound of the Jod Gumbaz, or the "Twin Sisters," which was used as a residence by the District and Sessions Judge of Bijapur up to 1918, was also cleared of similar accumulations, and the courtyard of the Jami Masjid was

cleared of débris preparatory to its being laid out with lawns and paved pathways. Apart from these measures, débris and jungle were removed both inside and outside the following monuments :—

1. Mihtar-i-Mahal.
2. Tomb of Ali Adil Shah I (Ali Roza I).
3. Aurangzeb's wife's tomb.
4. Haji Hasan's tomb.
5. Shah Nawaz Khan's tomb.
6. Asar Mahal.
7. Batulla Khan's tomb.
8. Mustafa Khan's tomb.
9. Ali Shahid Pir's Masjid.
10. Ark-Qila gateway.
11. Yusuf's Jami Masjid.
12. Small masjid near the Deccani Idgah.
13. Nari Mahal, Torvi.
14. Sangit Mahal, Torvi.
15. Asar Mahal, Torvi.
16. Arsh Mahal, Torvi.
17. Jahan Begam's tomb, Ainapur.
18. Ain-ul-Mulk's tomb, Ainapur.

On the monuments of Champaner a sum of Rs. 14,504 was spent on special repairs. The Lila Gumbaz (Plate III), a mosque with three main and several minor domes, assigned to the XVth century, was among the buildings so treated, approximately Rs. 5,000 having been devoted to finishing the work begun three years ago. The concrete caps of the ribbed domes were renewed and plastered, and the stone paving in the interior was reset and partly renewed, in addition to clearing away the vegetation and trees from a space of about fifty feet all around the monument. The concrete flooring of the Bohra-ki-Masjid was renewed and the central mihrab was rebuilt with new stones. In the Jami Masjid the roof of the colonnade on three sides of the courtyard was made watertight and the disturbed stone paving partly renewed and reset. In the Kevda Masjid, the back wall of which was repaired last year, the stone paving in the interior was renewed and reset, and the rear wall of the Nagina Masjid which was on the point of collapsing, is being dismantled and rebuilt. A foot-path also was constructed from the metalled road from Champaner to Halol to give access to the little-known masjid in the jungle called the Ek-minar-ki-masjid.

In Ahmadabad Rs. 4,507 were spent in special repairs to the tomb of Bahlol Khan Qazi at Dholka, where the later brick support wall on the south side in the interior of the masjid was removed, the pillars and lintels under the roof reset in plumb and the dome near the Zanana platform partly dismantled and rebuilt. The construction of two new buttresses, moreover, was started in the great brick mosque close to the railway station, locally known as the Khan Masjid, their purpose being to support the bulged wall in front of the building. At Vatwa, near Ahmadabad City, the task of building support arches under the

tomb of Diwan Shah Raju was completed. In the tomb of Jalal-ud-din Kutb Alam, at the same place, low modern masonry walls under the arches on four sides were dismantled and a teak wood railing provided in their places. The following monuments in Ahmadabad city were provided with wire-fencing and gates :—

1. Tomb of Azam Khan Muzzam Khan.
2. Small stone masjid near the Kochrab Paldi.
3. The tomb of Mir Abu Turab.

In Ahmad Shah's Masjid, inside the Bhadr, all openings in the back wall were closed with expanded metal in wooden frames, to prevent the entrance of bats, an additional room was built against the chaukidar's quarters, and the entrance gate was removed to the centre of the compound wall. Foot-paths were provided to the following mosques in Ahmadabad City :—

1. Ahmad Shah's masjid.
2. Siddi Saiyad's masjid.
3. Tomb of Mir Abu Turab.
4. Baba Lulu's masjid.
5. Azam Khan's masjid.

The high compound wall around Baba Lulu's masjid was reduced by three feet, and the compound wall around the Rani Sipri's masjid and tomb was raised to prevent children and cattle straying into the interior. In the case of Rani Sipri's mosque, latrines and water tanks had been built by the people of the locality too close to the masjid. These were removed and erected on a lower level where they are not so prominent.

The work of conserving the group of caves at Elephanta, on Gharapuri island near Bombay, was begun early during the year; unsightly heaps of débris in the side wings of cave No. 1 being removed and the ancient courtyard exposed to view. Altogether Rs. 11,000 were spent on this work during the year under review. The minor caves at Elephanta, which have received little or no attention in the past, were cleared of trees and boulders which had fallen from the face of the cliff. At the caves of Bhaja good progress was made with the building of a dry stone compound wall, as well as with the erection of a shed over the votive stupas. In the Southern Division, the special repairs to the monuments situated inside the fort at Belgaum were completed and the task of repairing the temples on the right and left banks of the Gokak Falls was begun, but could not, for want of funds, be brought to a finish. At Hydarabad (Sind) systematic repairs were undertaken among the tombs of the Kalhora Amirs, a sum of Rs. 9,354 being spent upon them. In the tomb of Ghulam Shah Kalhora three portions of the bulged dado in the interior were successfully dismantled and reset. On account of lateral pressure these portions of the dado (which consists entirely of tiles set in a bed of burnt gypsum mortar on a reed bed), had separated from the rest of the surface and owing to their highly precarious state had defied previous efforts to repair them. At the same tomb also the yellow stone pavement of the platform, on which the main tomb stands, was partly reset and all missing slabs were made good; the masjid

attached to the tomb was provided with a door of expanded metal in a wooden frame; openings in its walls were closed with the same material, and the flooring of the masjid was partly renewed. In the Karachi District further progress was made in the task of conserving the vast ruins in the Necropolis on the Makli Hills near Tatta which had been very imperfectly surveyed in the past with the result that a large number of valuable monuments had escaped attention.

Owing to the increase in the grant by the Local Government conservation work in the Western Circle was practically doubled and in order to cope with the sudden increase, Government sanctioned the appointment of two upper subordinates, one to be stationed at Poona and the other at Bijapur, and of seven lower subordinates to be stationed at the more important centres where conservation work is in progress. With this increased staff the total number of subordinates permanently engaged on conservation work in the Presidency amounts to two overseers and eleven sub-overseers. The latter have been distributed as follows:—One man each for Champaner and Ahmadabad; two men each for Bijapur, the Northern Division, Sind, and the Central Division, and one man for Dharwar in the Southern Division.

**Central India.**

In the Central India Agency the only noteworthy undertaking in the field of conservation was at Mandu in the Dhar State, where the State spent Rs. 3,288 on current repairs and maintenance besides Rs. 1,427 received as a grant-in-aid from the Imperial Government utilized for waterproofing the domes over the prayer chambers in the Jami Masjid. Later in the year, the Government of India were pleased to sanction a further grant-in-aid of Rs. 25,000 for the conservation of this important group of monuments.

**Eastern Circle.**

Expenditure on conservation in the Eastern Circle amounted to Rs. 41,079 as compared with Rs. 39,551 in the previous year. This sum was distributed over 228 items in all, of which only 27 are for special repairs. In Assam and Bengal the expenditure remained nearly the same as before. In Bihar and Orissa it decreased by about Rs. 7,000, while in the Central Provinces and Berar it increased by some Rs. 8,500. The decrease in Bihar and Orissa does not imply a diminution of actual conservation work since the extra Rs. 7,000 spent in the previous year represents capital outlay on the construction of the Archæological Rest-house at Nalanda and the erection of a monument at Buxar to mark the site of the memorable battle-field. In the Central Provinces and Berar, on the other hand, the increase of expenditure in the present year is due to the fact that some of the sanctioned major works, which were held in abeyance on account of the War, were taken in hand and a sustained effort was made to bring them to completion.

**Bengal.**

In the Province of Bengal the monuments that received special attention during the year were the Husaini Dalan at Dacca, the Chika Mosque at Gour, Ichai Ghosh's Temple at Gaurangpur, and the Palpara Temple near Chakdaha. In the case of the first two monuments the repairs were necessitated by the damage caused by the earthquake and cyclone of 1918, while in the case of the others the conservation work aimed at making good defective masonry, jungle clearance, and the provision of iron doorways and notice-boards

in the compound. Another work which deserves mention is the mounting on a masonry platform of the Dalmadal gun at Vishnupur in the Bankura District at the instance of His Excellency the Governor.

In Bihar and Orissa special repairs were carried out to the Arrah House at Arrah at a total cost of Rs. 2,216, and the erection of a monument on the battle-field at Buxar, for which Rs. 9,362 were sanctioned, was completed during the year. A further sum of Rs. 2,719 was also spent on conserving some of the buildings recently unearthed at Nalanda. The work accomplished this season consisted chiefly of strengthening the disintegrated hearting and repairing and preserving the exterior of the main walls of the Monastery at site No. 1. The fact that this particular site has been built over at least five times in the course of the centuries and that substantial remains exist of each of the successive structures erected here, makes both the excavation and the conservation a singularly difficult problem. An endeavour has been made, however, to preserve the largest possible extent of each one of these successive structures in such a way as to make the development through the ages apparent and obvious to the visitor. So far as the excavations have proceeded up to date, the verandah of the Monastery which was built over the ruins of the oldest building here, has been found to yield most richly. If the oldest building be designated A, this second Monastery is most conveniently called B, those above it being denominated C, D, and E in chronological sequence. As E, D, and C overlay the ruins of B, it was unavoidably necessary to cut through the verandahs of these upper Monasteries before the verandah of B could be approached. This cutting was carried out, however, over only a portion (albeit about ½) of the total area, but as the walls of the several superimposed structures proved to be weak, it was decided to fill in part of the area which had been cleared in order to support and preserve the ancient masonry which was otherwise in danger of falling in. In making this filling care has been taken to leave the divergencies in the ancient levels clearly visible to the eye, so that the three pavements lying above verandah B may all be clearly observed. Pandit Hirananda Shastri has also done substantial work on the main east wall at this site. The wall in question has not yet been excavated to its base externally, as its stability is open to question, but the upper portion had been exposed throughout its length, and was found to be in so fractured a condition as to call for immediate attention if it was to be saved. The conservation here has consisted mainly in consolidating the exposed hearting and in lifting the facing sufficiently to preserve the wall from further disintegration. It was evident, however, that an ornamental moulding had existed over part if not the whole of the length of this wall, but this moulding was not of a uniform kind throughout even its extant portion, whereas the facing having peeled off over a considerable extent, there was some doubt as to how this portion of the surface should be treated. In these circumstances, Pandit Hirananda Shastri very wisely decided not to lift the facing above the level of this original moulding in those portions of the wall where doubt existed, but he has done what was possible to consolidate the exposed hearting above this point and has taken

**Bihar and Orissa.**

pains to leave the upper edge of the hearting irregular. Various other repairs were carried out on site No. 3, but apart from roofing in the large standing image of Avalokiteśvara at the north-east of the main stupa, these repairs were prevailingly of a petty nature and consisted in the main of conserving the small votive stupas lying to the west.

**Central Provinces and Berar.**

In the Central Provinces and Berar the Vishnu Varaha Temple at Bilhari (Plate IV, *a*), the Tombs of Shah Nawaz Khan and of Nadir Shah at Burhanpur, the Fort of Balapur (Plate V), the Jami Masjid at Asirgarh and the Temple at Kanorabari (Plate IV, *b*) in the Damoh District were the principal monuments under repair. Of these the first two works as well as the repairs to the Balapur Fort were completed, but the rest were still in progress when the year closed. At Bilhari the measures carried out consisted in cementing the roof of the porch, re-erecting and strengthening the old columns of the same, closing the openings on the north and south of the shrine with wire netting, replacing missing stones in the platform south-east of the porch, erecting a wire-fencing round the platform and collecting inside it the images previously lying scattered about, as well as fixing a notice board. But the reports I have received on this work show that insufficient attention was paid to the instructions given by this Department and that the quality of the work done leaves much to be desired. Doubtless several of the mistakes made here could have been prevented if the Archæological Department had been in a position to do more in the way of direct supervision; but in the year under review the Superintendent in the Eastern Circle being in charge of four Provinces and being without any staff of special assistants found it impossible to inspectthe various works in progress throughout his Circle to the extent necessary if mistakes of this kind are to be forestalled. It is, therefore, with special satisfaction that I record the fact that orders were issued by the Government of India during the year in question for the subdivision of the old Eastern Circle with effect from the 1st April 1920, so that in future we shall have a whole-time Superintendent in charge of an Eastern Circle comprising Bengal and Assam only, and another Superintendent with an Assistant Superintendent in charge of the Central Circle, which in future will embrace only Bihar and Orissa with the Central Provinces and Berar. This splitting up of the Eastern Circle will enable the Superintendent at Patna to devote an appreciably larger part of his time to the work in the Central Provinces; and if, as I hope, we succeed in adding to the cadre of each Superintendent a small number of trained Conservation Assistants, the danger of such mistakes as those which have occurred at Bilhari will be effectually eliminated for the future. If there is one thing more certain than another it is that to entrust the repair of an ancient monument to an inexperienced and untrained subordinate of the Public Works Department, even if he be provided with the most detailed instructions, is to invite disaster.

**Southern Circle.**

In the Southern Circle good progress has been made with the new roads under construction at the Seven Pagodas and this work ought to be completed before the close of this year. The casuarina trees which were planted to form an avenue for the new road to the Five Raths have done well and are now

sufficiently high to give a certain amount of shade to visitors using this road. Here and there a few gaps in the avenue occur owing to the carelessness of some of the local cartmen who use the stone quarry to the south of the Five Raths. But new trees have been planted in these gaps and temporary fencing has been erected to protect them. As soon as the new road to the Shore Temple is completed, it will also be provided with an avenue of trees, but in this area Mr. Longhurst proposes to try rain trees instead of casuarina. Rain trees do well at Mahabalipuram, grow fairly quickly and provide better shade than casuarina trees; but it will, of course, be several years before they become really useful in this respect. Almost all the monuments at Mahabalipuram being monolithic, their conservation is a simple matter, requiring only such petty repairs as cement pointing to keep them watertight. The smaller pathways over the hill are also being metalled, as well as the main cart roads, and this will add considerably to the comfort of visitors.

An addition to the standard list of ancient monuments selected for conservation in the Madras Presidency and declared protected has been made by the inclusion of the Chola temple at Tiruvadavayil, a village two miles distant from Koradacheri Railway Station in the Nannilam taluk of the Tanjore District. This temple, which is dedicated to Siva under the name of Punyanatha, contains little or nothing of artistic merit and is of no special architectural value, but it does contain a number of inscriptions which the Government Epigraphist considers to be of great value and it is on account of this that the temple is to be preserved, although the repairs are to be restricted to that portion of the building which possesses the inscriptions.

In his Provincial Report for this year, Mr. Longhurst gives an interesting account of the palaces within the Fort at Chandragiri in the Chittoor District, four miles from the Chandragiri Railway Station. The history of the place, he says, is somewhat vague, though the style of the Fort and the buildings within it seem to indicate that they belong to the 17th Century. However this may be, there seems no doubt that it was to this place that the royal house of Vijayanagar betook their fallen fortunes toward the close of the 16th Century, though none of the existing remains date from so early a period. What invests the King's Palace with special interest is the fact that in 1639 a king named Ranga who was ruling at Chandragiri heard that the English, who in 1625 had moved their factory from Masulipatam to Armegaum, were dissatisfied with the results of their trade in that place. An invitation was, therefore, sent by the Kalahasti Poligar (a tributary of the king) to Mr. Day, the Superintendent of the Company's Factory, to settle within his dominions which extended to the coast. The offer was accepted, and Mr. Day visited the Raja in his palace at Chandragiri in 1639, where in 1640 a grant was made of a small strip of land on the coast, the first ever possessed by the British in this part of India. To protect themselves against the danger of attack from their restless and lawless neighbours a fort was built and named Fort St. George, after the traditional champion of England. For this reason it is particularly gratifying to note that the conservation of this historic palace is now well in hand. The palace itself

is an oblong building running from east to west with the front façade facing south. It has a frontage of about 160 feet and is 50 feet in breadth, the total height of the building being 95 feet. A curious feature of the edifice is that it possesses no entrances on the south side although this may be regarded as its front, all entrances being on the north. The construction, Mr. Longhurst says, is both peculiar and remarkable, and the fact that the building is still standing today is due to the excellent quality and wonderful tenacity of the mortar employed in its construction, which is particularly noticeable in the striking series of flat arches and coffered ceilings within the building. The plaster work, too, is excellent and its good quality has been the means of keeping the building watertight and preventing the growth of vegetation in the joints of the masonry, thus saving it from serious decay.

Another curious feature is the absence of timber in the construction. The brackets supporting the balconies and the little rafters carrying the projecting eaves and cornices of the roof, and the brick towers above, are all made of cut stone bedded in mortar and were originally moulded and decorated in stucco. Much of this handsome stucco ornament still exists, but it is clear that this work, and even the plain plastering of the outer surfaces of the walls, was never completed, this being particularly noticeable on the northern façade.

It has been found that the best means of preserving this handsome and historic building from further decay is to protect the exposed masonry where the plaster no longer exists. The curious mixture of rubble and brick-work used in its construction does not lend itself successfully to "pointing" as a means of arresting further decay. At the best, such a method would produce a most patchy appearance and would take longer and prove more expensive than plastering. Mr. Longhurst has accordingly proposed that the whole building from the floor of the stone basement to the roof line be replastered where necessary, care being taken that the plaster employed be of the same quality and so far as possible of the same colour as the remaining old plaster.

Alongside the King's Palace is a small building known as the Queen's Palace built in the same general style and of similar materials to those employed in the larger building and, like it, depending mainly upon its coat of plaster for its preservation. The building is oblong on plan and faces the east and consists of ground floor, first floor and terraced roof. It has a frontage of 92 feet, although it is only 16 feet in depth, with a square projecting hall on the west side, this being the chief apartment in the building. The main interest of this structure is its elaborate and beautiful stucco decorations, some of which are picked out in colours, though, unfortunately, the colouring was never completed.

At Hampi considerable progress has been made in removing the thick jungle growth which covers the greater portion of the site of the old capital, and the ruins of more buildings have been brought to light. These are mostly of minor importance, but they add greatly, Mr. Longhurst says, to the picturesque appearance of this site, and help to give the visitor a better idea of the vast extent of this wonderful old city. A good deal of attention has also been paid to

improving the communications at this site, and steps have been taken to open up portions of the old water system that existed in the 16th Century. A ruined Jaina temple, containing a number of important inscriptions, which stands in a field at the back of the elephant stables, has recently been taken on to the list of ancient monuments, and repairs have been executed to save it from further decay, the same being true also of a number of minor ruins which have had to stand over until the more important buildings could be put into a state of good repair.

Another monument which has been protected in the Southern Circle this year is the fine old Sidhout Fort on the banks of the Pennar river in the Cuddapah district, where the Public Works Department have just completed the measures recommended by Mr. Longhurst in his Conservation Note of the 3rd October 1915. Although the Fort is a very picturesque monument delightfully situated on the river, it is so extensive and so ruined in places as to render its general repair impracticable. Accordingly the work now being carried out has been restricted chiefly to the gateways on the east and west, to the mosque known as the Purkota Masjid, and to the tomb alongside of it. The walls facing the river are much decayed in places where the foundations have been scoured out by heavy floods, and as it was impossible to preserve the whole length of this wall without unwarrantable expenditure, it was decided to repair only those portions which give protection to buildings inside the Fort.

The work at Gingee Fort (Plate VI) begun some years ago has also been continued in the year under review, a sum of Rs. 2,026 having been spent on special repairs to the Audience Hall on Krishnagiri, to the large granary, the Vellore gate, the Venkataramana temple and Sadat Ali Khan's Mosque. Mr. Longhurst's proposals for the work at Gingee were drawn up as long ago as 1915, but owing to the vast area covered by the fortifications and the number of buildings to be conserved the work has taken several years. Mr. Longhurst now records, however, that the Fort, the main buildings and the roads are all in good order, so that the visitor has no difficulty in inspecting any of them easily and comfortably.

The special repairs to the Krishna temple and other monuments at Udayagiri in the Nellore district are nearing completion, a further sum of Rs. 2,274 having been spent on conservation this season. The work is still in progress also on the historic Fort at Anjengo on the West Coast, but a detailed report on this exceedingly interesting old monument is deferred until the repairs are completed.

Mention is also made by Mr. Longhurst of the Margasahesvara temple at Virinchipuram, a very wonderful *mandapa* of which is illustrated in figure *a* of Plate VII in this Report. This monument, Mr. Longhurst records, is an extensive building dedicated to Siva, which stands in a stone-paved courtyard surrounded by lofty walls pierced with the usual *gopurams* or gateways. The central shrine is said to date back to Chola times but most of the other portions including the *mandapa* shown in Plate VII belong to the later Vijayanagar period.

This and another beautiful *mandapa* are said to have been built by Bomm Reddi of Vellore and his sons, and designed and executed by the son of the

architect who built the famous *mandapa* in the Vellore temple, one of the most wonderful works of the kind in Southern India. Europeans are not permitted to enter the main building which is surrounded by high walls, so that very little can be seen from outside. Being private property and still in use as a place of worship, the trustees find the necessary funds to maintain the building in good repair, but certain petty repairs costing only Rs. 90 were executed at Government expense on Mr. Longhurst's recommendation as they were of an urgent nature and the trustees could not find the necessary funds at the moment.

**Burma Circle.**

In Burma the amount of outstanding conservation work is very large, the unfunded estimates now amounting to from $2\frac{1}{2}$ to 3 lakhs. It is to be remembered also that some of these estimates were prepared long ago, so that drastic revision will be necessary in many cases. What this is likely to involve may be gauged from the fact that one estimate which has recently been revised and which originally amounted to Rs. 8,646 for rebuilding pyatthats Nos. 33 and 12 on the Fort Walls at Mandalay now amounts to Rs. 30,933, the difference being due to increase in the price of building materials and local labour. From this it will appear that double, if not treble, the originally estimated amount may have to be provided before the existing programme can be brought to completion. In the year under review approximately $\frac{1}{2}$ lakh of rupees was spent, about evenly divided between the local Government and the Government of India. Most of this expenditure was incurred in continuing the conservation of the Palace Buildings at Mandalay and the pyatthats on the Fort Walls, the commencement of which was chronicled in last year's Report. The repairs to the Palace during the present year, Mr. Duroiselle reports, consisted in repairing the glass work in some of the panels of the Theatre Hall and also the glass mosaic work in the Glass Palace. Gold-leafing was done to the East Audience Hall and also to the Glass Palace, and some missing carvings were replaced. On the east of the building now used as a Museum a balcony which had become very dangerous was repaired, and a few posts in the Audience Hall which had sunk down were jacked up and provided with masonry footings. Considerable progress was made in the conservation of the pyatthats on the Fort Walls, those on the South Fort Wall being straightened and provided with masonry footings strapped with iron. All the pyatthats were earth-oiled, and missing carvings were replaced. Two other intermediate pyatthats, one on the east and the other on the west, which had nearly collapsed, were dismantled and rebuilt, the old material being used as far as practicable. The difficulty of conserving these monuments is particularly great owing to the fact that they were not originally constructed of new materials, but of timber obtained by dismantling the Palace at Amarapura which had been built originally as far back as 1781 A.D., with the result that much of the woodwork is now in an advanced stage of decay. In addition to the above works, special repairs costing Rs. 4,330 were carried out to King Mindon's Tomb at Mandalay and other repairs costing Rs. 4,496 to the Tombs of the Burmese Queens in Mandalay. Further special repairs were also undertaken to the Thudama (Plate VII, *b*) and Patan Zayats at the foot of the Mandalay Hill at a cost of Rs. 2,656. These

latter measures consisted in renewing certain old carvings which were in a parlous state and which could not be preserved any longer without danger to the buildings. In the Thudama Zayat also, one post and in the Patan three posts, which had sunk, were jacked up and masonry footings provided.

On the occasion of his visit to Pagan in July 1919, His Honour Sir Reginald Craddock took the opportunity of consulting with the local officers, including the Archæological Superintendent, as to the best means of providing Pagan with a system of roads connecting all the important temples and pagodas there. A Committee was formed and a meeting subsequently convened at Pagan in October 1919 to study the problem of these new roads, and it was decided also in addition to the roads themselves to construct two small bungalows, one at Min-nan-thu and the other near the Petleik pagoda, for the convenience of Inspecting Officers and visitors. Plans and estimates for these works are now being prepared by the Executive Engineer, Pakokku. But no conservation work beyond annual repairs could be undertaken at Pagan this year owing to want of funds, as the preservation of the Palace at Mandalay is so urgent as to take precedence of practically all other works and so extensive as to absorb by far the major portion of the available funds.

**Hyderabad.** In H. E. H. the Nizam's Dominions, Mr. G. Yazdani reports that a total sum of Rs. 34,331-6-10 was spent during the year on conservation. The most important undertaking related to the repairs to the Daulatabad Fort which have been completed at a cost of Rs. 8,131. These repairs included the underpinning and waterproofing of the main gateways and walls of the Fort, the clearance of débris and jungle from the sites of all important historic buildings, the dressing and levelling of the main road and the laying out of new muram paths to the principal monuments. Another large undertaking in the Dominions which was completed during the year is the thorough conservation of the series of Buddhist caves at Pitalkhora. The main items of repair consisted of the building of neat props of ashlar masonry in place of the original pillars; the insertion of masonry blocks in side walls which had been undermined by the constant accumulation of rain water; the entire removal of the silt and débris, and the thorough drainage of the caves. As a result of these operations it has been possible now to examine and take measurements of the two *viharas* which are excavated at the western end of the series and have not been described as yet. Both of these caves are almost of uniform plan and size, each consisting of a hall 32′×27′ and thirteen cells, five excavated in the back of the hall and four in each side of it. The cells measure 9′ 6″×6′ 2″ inwardly and contain a pair of benches or raised rectangular seats arranged at right angles to one another. There are remains of coloured plaster on the ceilings of both the *viharas* and the other decoration consists of a band of imitation rail carved in relief over the doors of the cells. The caves are apparently coeval with the well-known *vihara* and *chaitya* of Pitalkhora, which date back to the 1st Century A.D. or even earlier.

At Bidar a further sum of Rs. 2,124 has been spent in repairing the famous Madrasa of Mahmud Gawan and the operations are still in progress. In the Raichur District, the beautiful Chalukyan temple at Ittagi has been thoroughly conserved; the entire work involving an expenditure of Rs. 7,008, of which Rs. 3,728 have been spent during the year. Another monument in the Raichur District the conservation of which has been completed this year is the Nawaling temple of Kukkanur. It is built in the Dravidian style and dates back to the 12th Century A.D.

Kashmir.

In Kashmir, Mr. Kak, the State Superintendent of Archæology, reports that during the year 1919-20 conservation work was resumed on the ruined temple of Dhathamandir situated about seven miles above Uri. This is the first monument that the visitor to Kashmir meets on his way into the valley by the Jhelum Valley road. Its courtyard and peristyle, which were buried under the ground until 1914, were completely excavated by Rai Bahadur Daya Ram Sahni during his deputation to Kashmir (1913-1916). Mr. Sahni also carried out some repairs to the gateway and completely consolidated the whole of the basement on which the central shrine stands, by dismantling and rebuilding portions that were out of joint and replacing old and decayed blocks by new ones. He also commenced the conservation of the cella itself and successfully dismantled the north-east corner which appeared to him to be the most dangerous part of the edifice, but had no time to reconstruct it. This was done last summer by Mr. Kak who has also effected further repairs to certain portions of the main building which were out of plumb and had to be dismantled and rebuilt. Mr. Kak states that owing to the vast size of the stones, the task proved one of great difficulty. If funds can be made available by the Darbar, the conservation of this important structure will, it is hoped, be completed next year. At Chashma-i-Shahi the work left incomplete in the previous year has now been brought to a finish, and at Pandrethan, the old capital of Kashmir, some much needed repairs have been carried out to the well-known stupa and monastery.

Explorations, Taxila.

Sirkap.

Owing to my own absence on leave from India my excavations at Taxila had to be suspended during the autumn of 1919, but they were resumed again in the following spring and, though the season was a short one, substantial progress was made both in the city of Sirkap and on the Bhir Mound. At the former site, I made it my object to examine tentatively the unbroken ground west of the High Street towards the northern end of the town. For this purpose two long trial trenches were drawn across the area in question, one 1,200 feet in length and running parallel to the High Street, the other half as long and running in a diagonal direction from north-west to south-east. Both of these trenches yielded numerous structural remains, coins and small antiquities generally similar in character to those found in other parts of the Parthian stratum, showing clearly what may be expected when the excavations come to be expanded over this area. Apart, however, from this general and very useful information supplied by the trial trenches, some discoveries of unique interest were made in the second of the two trenches at a point between 20 and

40 yards from its north-west extremity. Here the trench struck across one of the back streets of the town, and, on the south side of this street, across a complex of rooms forming a building of considerable size. Some thirty rooms in this building have been cleared up to date, but its limits have not yet been reached, and it would be premature therefore at this stage to enter into any details regarding its plan. Suffice it to say that it appears generally to resemble both in plan and construction other houses on the same level in Sirkap. In one of its rooms, namely that numbered *19* on the field plan, was a large store jar of coarse earthen-ware, and scattered round about it several pans and bowls of copper and some iron dishes. The jar itself had been closed with a lid of copper, and inside it and half filling it was a unique collection of articles which had evidently formed the stock-in-trade of some lapidary and jeweller and had apparently been put into the jar in a great hurry. Specimens of these articles are illustrated in Plates VIII, IX and X. Figs. 3 and 4 of Plate VIII are copper spoons (6¼ and 6½ inches respectively in length), Fig. 9, one of a number of copper or bronze goblets standing 7½″ high, and Fig. 5 is one of two silver dishes (diam. 6½″) adorned with repoussé ornaments and once inlaid with coloured stones or paste. Fig. 8 of the same plate is the eye of an idol made of lapis-lazuli and shell. Fig. 3 of Plate IX is a flask of sea-green glass, 5¼″ in height, the first intact specimen of a glass vessel that has been found in the North-West of India. Fig. 27 of Plate X is the head of a man cut in relief out of shell: fig. 28 is a steatite matrix, meant probably for gold casting, with a figure of Simhavahini seated facing on her vehicle, the lion, and holding aloft a sword in her right hand. No. 32 is a fragment of an agate casket, and No. 33 another specimen of highly polished agate of which many examples were included in the collection. Besides the specimens reproduced in the Plate illustrations, the contents of the jar included nine coins, numerous discs of rock crystal and glass, crystal *urnas*, small stone weights, gold bangles, amulets and pendents, a gold ring set with a carbuncle, copper mirrors, dishes, and cups, pieces of Chinese jade specially interesting in connexion with the question of the Far-Eastern trade with India at this period, and pieces also of a finely polished white substance which has all the appearance of semi-translucent porcelain, but the precise nature of which has yet to be determined by analysis. Other specimens of the same substance were found also in the Bhir Mound, where they can be shown to date back to the 3rd or 4th Century B.C.

In the room adjacent to the one described above and on its north side was a hoard of 120 copper coins containing issues of King Gondophares and other Indo-Parthian Kings and in the next room to the west was a collection of various small copper ornaments together with a Gandhara statuette of a unique kind. Of the copper ornaments examples are illustrated in Plate X, figs. 1 to 18, 20 to 26 and 31. Specially interesting among them are the *kirttimukha* head shown in fig. 25, and another of more conventionalised form in fig 31, and the "Comma" designs reproduced in figs. 1-10, which afford a striking illustration of the evolution of a bird-head motif from the simple comma so familiar in

the "dot and comma" pattern of Scytho-Parthian art.[1] The Gandhara statuette found in the same room (Plate IX, figs. 1 and 2) is 9″ high and in the round. It represents a female clad in tunic and *sari*, with jewelled girdle round her middle, bracelets on her arms and holding a lotus in her right hand. In the Gandhara School figures completely in the round, such as this one, are exceedingly rare, and what adds still further to its interest and value is the fact that it can be assigned with certainty to a date not later than the middle of the first Century A.D., thus supplying us with a definite landmark—where landmarks are singularly few—in the early history of this School. Other noteworthy objects from this building or from the side street adjoining it are a stone matrix with Kharoshthi lettering on its back (Plate VIII, figs. 1 and 2), a copper ladle 10½″ long (Plate VIII, 6), an agate finger ring (Plate VIII, 7), a miniature copper relief (height 1$\frac{11}{16}$″) probably an attachment for a vase, portraying an Aphrodite-like figure standing on a lotus (Plate X, 19) and a copper door key (Plate X, 30).

In three of the chambers of this house (Nos. 10, 13 and 14) the digging was carried down to a depth of from 17 to 20 feet, and revealed two more strata of buildings below the uppermost one, corresponding with the strata exposed in other parts of the site, the second stratum being at a depth of about 6 feet below the surface and the third at about 11 feet. At this particular spot, however, there is good reason for believing that the ground of the two lower strata had been much disturbed in ancient days either before or at the time when the buildings in the topmost layer were constructed. Consequently it would be unsafe, when seeking to establish the date of particular coins or other small objects found in the two lower strata, to draw conclusions from the relative depth at which they were found. The most that can be affirmed is that none of the small antiquities from these two strata are posterior to the Parthian epoch. This point is of some importance with reference to the Gandhara statuette described above, which was found actually in the second stratum at a depth of 5′ 8″ from the surface, and which but for this disturbance of the ground might have appeared to be of still earlier date than that assigned to it.

**Bhir Mound.**

Simultaneously with the above operations in Sirkap I began a more thorough and systematic examination of the Bhir Mound, where the most ancient of the cities of Taxila are located. Here, seven years ago, I had carried out a little trial digging for the purpose of determining whether any structural remains of importance existed within the limits of the area chosen for the Archæological offices and their compound. My excavations at that time, which were confined to the northern end of the site, revealed in the uppermost stratum nothing more than fragmentary foundations and the smaller antiquities were few. Nevertheless they sufficed to demonstrate that this stratum dated back to the third or fourth century B.C.—that is, to the period before the Bactrian Greeks had established themselves at Taxila—and that beneath this topmost stratum were the remains of various earlier epochs, the respective ages of which could only be dimly surmised. From the results of this preliminary digging it seemed to me that the Bhir Mound would offer a very fair chance to the excavator of

[1] *Cf.* O.M. Dalton *The Treasure of the Oxus* pp. 30-32.

throwing light on the dark age of Indian culture which preceded the advent of the Mauryas, an age of which no monument is known to exist in the North-West of India, with the single exception of the Aramaic record recovered by me from the Parthian City in Sirkap. Not that the conditions for excavation in the Bhir Mound appeared to me particularly favourable. Far from it. The surface of the fields which roll across the buried city, are unbroken by any excrescences which might give a clue to the position or nature of the structures hidden beneath them; the subsoil is tough and forbidding—as tough as any into which I have ever struck spade; and, what is worse, the buried buildings are composed of rough rubble stone uncemented by any mortar, so that the greatest difficulty is experienced in tracing out their walls and foundations and freeing them from the hard, compacted débris in which they are imbedded. Moreover, in such a site as this the chances are fifty to one against unearthing any remains save those of private houses, shops and streets, and unless these happen to have been destroyed by some sudden catastrophe, they are unlikely to yield many minor antiquities. On the other hand, an important and very attractive feature of the Bhir Mound is found in the fact that the remains of the pre-Greek period lie immediately below the surface, in some places within six inches of the growing corn, and that they are wholly unencumbered by the débris of later ages. It seemed to me therefore that however unpromising in other respects the conditions might be and whatever the difficulties involved, there ought to be no hesitation about including in my programme of excavations a site which carries us back to such a dim and remote past. I mention this because I wish to make it clear at the outset of my work in the Bhir Mound that I have no expectation of reaping here a rich harvest of finds such as I have reaped amid the Buddhist settlements at the Chir Tope, at Jaulian, and at Mohra Moradu, nor even of recovering as much as I have recovered in the Scytho-Parthian city of Sirkap, where the conditions are in every way more favourable. What I do hope is that we shall be able to lay bare a small section of each of the three cities, buried one above the other, on this site; to recover representative plans of their buildings; and to glean at least a little more definite knowledge of the culture of the people at the time of Alexander's invasion and perhaps also of the still earlier period when Taxila was a tributary of the Persian Empire.

To this end, the plan of operations which I proposed to myself was to open up a long trench east and west across the ground which I had acquired near the centre of the site and to sink this trench sufficiently deep to afford a clear idea of the stratification down to virgin soil; then, if practicable, to clear a representative area of the uppermost stratum, and where the remains in this stratum proved to be most ruined and barren, to descend to the second stratum and so on to the third or fourth. During the very limited time which I could give to this project last spring only the first part of this plan could be carried out. The trench which I sank measured 500 feet long by 20 feet wide and for the greater part was carried down to a depth of some 18 to 20 feet. It disclosed the existence of three distinct strata of buildings, the floor level of

the uppermost from 3 to 4 feet below the surface, that of the middle one from 6 to 7 feet, and that of the lowest from 12 to 15 feet, with certain intermediate strata not clearly defined. Some of the floors, particularly in the middle stratum, are formed of cobble stones or of well-rammed *kanjur*; of the others the levels are indicated either by horizontal offsets in the walls at the point of juncture between the foundations and the superstructure, or by the presence of stone jars which as a rule are sunk into the floors to about half their height. In all three strata the masonry is rough rubble, with *kanjur* mingled freely with the harder limestone boulders, and serving to some extent as a binding agent. Between the earliest and latest walls the only difference observable is that the boulders employed in the former are larger and that the construction is conspicuously rougher. The masonry of the middle stratum is transitional between the other two.

On the plans of the buildings disclosed in this trench it would be premature to speculate at present. Doubtless they will disclose themselves as the digging proceeds; but meanwhile it may be of interest to mention the existence of open drains of terracotta in the lowest stratum and also of several wells, which appear to belong to the latest stratum, though the masonry of one of them has, it is true, been demolished as far down as the second stratum. The wells are circular, with an average diameter of 2 feet 6 inches, and to a depth of 13 or 14 feet are constructed of rubble masonry (limestone and *kanjur*) below which they are *kaccha*, the present water level being about 70 feet from the surface. Whether these wells were for the drawing of water or intended only for drainage purposes or for refuse, remains to be determined. At present, I find it difficult to believe that such narrow wells could have been carried down to water level. Another feature of singular interest in these buildings is the presence in all three levels of certain curious circular pillars, which are placed in such positions as almost to preclude the possibility of their having served an architectural purpose. One of these pillars, for example, (there are six in all) is in a room measuring no more than five feet in width by fifteen in length and is set against the middle of one of the long sides; while other pillars have no apparent reference at all to the plan of the chambers in which they stand. All have slightly tapering shafts and are constructed of rough rubble masonry, with diameters varying from 2′ 4″ to 3′ 6″. None of the pillars is now standing to a greater height than 5 or 6 feet above the floor level, and the presence of a heavy stone slab on the top of one of them suggests at first sight that the pillar was merely the base for a wooden post, but this explanation is discounted both by other considerations and by the rough irregular surface of the slab itself. Beneath four of the pillars, the foundations extend only a foot or so below the floor level, but in one case the foundations are six and, in another case, eleven feet in depth. In these two cases it is a plausible surmise that the foundations, which are circular in plan, slightly smaller than the superstructure and composed of river pebbles, were formed simply by filling in the shaft of a *kaccha* well; but whether this surmise will eventually prove to be correct, and, if so, whether the erection of the pillar over the mouth of a well has

any particular significance, are problems that remain to be solved. In the core of some of the pillars were a few fragmentary bones, but the conditions in which they were found leave it uncertain whether they were put there by accident or by design. That the pillars may have been connected with a cult of the dead, or that they may have served some other religious purpose, is, of course, quite conceivable, but the evidence is altogether too slight for any inference to be drawn at present. One point, however, is certainly worthy of note, namely that no pillars of a like kind have been found in the later Scytho-Parthian city in Sirkap.

The minor antiquities found in this trench are few, but they are not without interest. They comprise coins, engraved gems, beads of many sorts, broken bowls or other small vessels of agate and rock crystal, a granite dish of exquisite workmanship, iron arrow heads and a few domestic implements of the same metal, stone crushers and grinders, earthenware vessels, terracotta toys and sundry miscellaneous objects and ornaments such as flesh cleaners, bone pins, antimony rods, etc. Of the coins twelve are copper, four billon and two silver. Thirteen are known "punch-marked" varieties, including "bent bars" of billon and silver and massive circular and thin circular coins of copper. But a new type is presented by two round billon coins, one round silver, one rectangular copper and one round copper, all of which exhibit a plain reverse and a six rayed star or wheel with trident terminals on the obverse. The engraved gems on finger rings are illustrated in Plate XI, Nos. 1-6*a*. Of these, the second and third are from the middle stratum, the remainder from the top stratum. Nos. 1 and 4 are finger rings, the former of copper engraved with a crude figure of an elephant and rider, the latter of lead and engraved with a lion; No. 2 is a steatite scaraboid exhibiting a winged stag, in the cutting of which the drill has been freely used; the succeeding one is a pyramidal seal of dark limestone bearing the figure of a man with outstretched arms; the fifth is roughly conical and also of dark limestone; and the sixth is similar in shape but of copper. The device on No. 5 is singularly interesting. It portrays a man standing in front of what appear to be three swords set trident-like on a stand, with a spherical object (seemingly held by the hand) above the point of one of them. Possibly this object is a water vessel, but whatever it may be there can be little doubt that some religious ceremony is here delineated, and one instinctively recalls to mind the remarkable copper swords from Fatehgarh in the United Provinces which, as their excessive weight and peculiar spiked handles indicate, seem to have been meant not for practical use, but for some ceremonial purpose. Long ago I surmised that these swords were intended as objects of worship to be fixed upright in the ground, and in the small seal before us I am inclined to see a corroboration of this idea.

Of the rest of the miscellaneous objects figured on Plate XI the only one which does not come from the top stratum is No. 13—a weird looking little amulet of stone, which, in spite of its pinched little face, clasped hands and upturned tail, bears an odd resemblance to a chrysalis.

Fig. 8 is a small copper "stilus" with one end sharpened for writing on wax, the other flattened for erasing. Fig. 10 is a fragment of bronze adorned

with four horses heads, which call to mind the horses of Surya. Fig. 11 is another example of the curious earthenware articles of which two other examples were previously found on this site. In this case the interior is divided into three compartments and a tiny hole provided at the base of the middle one, but in the other specimens the compartments are absent. What their purpose was is unknown, though I suspect from the evident care and precision with which they are fashioned and from the lettering and marks stamped upon two of the specimens, that they were used as some sort of measures. Fig. 12 is a broken *triratna* charm, the spiraliform decoration on which finds a parallel in some of the Piprahwa finds and in a few other objects of the same early period. It is not, so far as I am aware, found at a later age in India. Figs. 9 and 14 are characteristic specimens of the primitive terracotta work of this period, and Fig. 15 is a typical example of children's toys.

More than once, in the past, I have drawn attention to the very great technical skill exhibited in the jewellers' and lapidaries' arts of the Mauryan age. I think that we can now safely affirm that these arts and with them the art of glass making also had reached a high pitch of excellence long before the 3rd Century B.C. This is clear from the finds made in the middle and lowest strata which include beads of carnelian, agate, lapis-lazuli, crystal, pearl, coral and shell of various shapes and designs and many of them beautifully finished, while the glass beads in these two strata are good in quality and demonstrate considerable knowledge of the processes of colouring, the specimens recovered including white, yellow, blue and green as well as blue relieved by white concentric circles in the familiar manner of "Phœnician" glass.

As to the respective ages of the second and lowest strata, it would be premature at present to hazard a guess. All that can safely be said is that the top stratum belongs unquestionably to the third or fourth Century B.C. and that the second stratum can hardly be less than a century older than the top one and the third stratum not less than a century older than the second, though it is likely enough that the intervals between the three strata will prove to have been considerably longer.

**Muhammadan and British Monuments. (Northern Circle.)**

At Delhi, with the sanction of the Chief Commissioner, four draughtsmen were appointed for a period of two years from October 1919 to assist in a comprehensive survey of the principal groups of monuments in that Province. Originally it was intended that only measured plans and such sections as were indispensable should be prepared, and that these drawings should be supplemented by photographs of the elevations and decorative details of the buildings. Under the supervision of Mr Page, however, who was placed on special duty for the purpose, the original programme was considerably expanded, and both at the Qutb and the Kotla of Firozshah it was decided not only to record what is actually existing of the present remains, but, from a careful study of the internal evidence to visualise and reduce to paper what the buildings were like at the time they were constructed. Much evidence, both definite and deducible, has been found to be forthcoming in this direction, and it has been possible to supplement it substantially by comparison with analogous features of

contemporary structures both in India itself and in the Saracenic architecture of other countries. Thus, at the Qutb, it was found possible to reconstruct, with some degree of assurance, the general architectural design of the original mosque and its subsequent extensions, and to build up, from a study of the existing evidence, a complete restoration illustrating the original appearance of the Great Arched Screen, the greater portion of which (namely, that afterwards added by the Khalji Sultan Ala-ud-din) is now only represented by the fragmentary remains of the pier bases *in situ*. Of the Alai Gate also (Plate XII, *a* and *b*) it was possible to reconstruct the original design through a study of the marble banded treatment of the architraves enclosing the central arched openings, and to note how, in the repair of the gate executed by Major Smith, R.E., about 1828, this design was lost sight of, greatly to the detriment of the appearance of the gateway. These features are being fully illustrated in a Memoir which is now under preparation. Another point of some interest was the discovery that the somewhat curiously shaped *kanguras* (Plate XII, *c*) over the entrance doorway of the Qutb Minar, which, called forth the strictures of both Mr. Fergusson and General Cunningham (A. S. R., Vol. I, p. 199), were not, as was thought by them, an innovation on the part of Major Smith in his repair of the structure, but were integral features of the original design replaced *in situ*. *Kanguras* of almost identical design still exist in Cairo on the walls of the mosque of Al Azhar (1208 A.D.; *cf.* Saladin, "*Manuel d'Art Mussalman*," Vol. 1, pp. 86-7), and both have their proto-type in similar features which ornamented the walls of early Sassanian structures. The same motif treated in almost identically the same way, appears, also, on a silver Sassanian dish illustrated in Miss Bell's "*Palace and Mosque of Ukhadir*," Plate 86. Yet another interesting result of Mr. Page's researches at the Qutb was the determination of the extent of the original Hindu temple there, the upper part of which was demolished by the Muhammadan invaders prior to the erection of this their first mosque; for at the Qutb is the earliest monument to Islam erected by the Turks in this country. Included among the many drawings prepared by Mr. Page to illustrate his Memoir on this group of buildings is a comparative diagram contrasting the silhouette of the present minar, as repaired and heightened by Sultan Firozshah after its damage by lightning in 1369 A.D., with its conjectured original proportions as seen by Abul Fida in 1330 A.D., on which occasion he counted the steps to number 360 as against the present 376 (excluding those added by Major Smith). The proportions of the original minar, with its diminished height of some 9 feet 4 inches (as calculated by the rise of the present extra steps), appear much more harmonious in their effect than the present proportions, which have been disturbed by the imposition of an extra storey on the old minar; and this feature is made very noticeable on viewing the minar from a distance against an evening sky (Plate XIII), when the 4th stage of the structure appears to have appreciably telescoped into the next storey below, as one's eye scales the minar from bottom to top.

At Kotla Firozshah the ruined remains of the 14th Century Pathan citadel were exhaustively surveyed, and a restoration on paper in the form of a "bird's

eye view " was prepared by Mr. Page, based on a careful scrutiny of the existing internal evidences and on the analogy of contemporary remains in Delhi, notably the Qadam Sharif, where several features of the fortified walls, such as *chattris kanguras*, *damoghar*, etc., missing from Kotla Firozshah are still preserved (Plate XIV). Indications of the remains of dual gates, set at right angles to one another in various positions about the Kotla, furnish evidence of the number and extent of the several internal courts (now otherwise wholly disappeared) into which this area was divided; while literary evidence of the uses to which these courts were put was found in the contemporary accounts given in the *Fatuhat-i-Firozshahi* and the *Tarikh-i-Firozshahi* (Elliot and Dowson, Vol. III). A singular feature of the courts flanking the main entrance of the citadel—and one not a little puzzling at first sight—is the manner in which the loopholed walls are so constructed as to permit of the downward discharge of arrows into the courts themselves. This apparent anomaly readily explains itself when one perceives that the walls of the flanking courts in question were added subsequent to the erection of the main gateway: the obvious intention of their builders being to widen against converging attack the narrow salient which this projecting entrance bay formed—a principle of military defence as applicable in the days of Firozshah as it is in the 20th Century. Indications on the site point to the River Front of the Kotla having been the location of the original Royal Palace, and this view is strengthened by the analogy of the later forts of the Mughals at Agra and Delhi; for such a position would be the most attractive one the site would afford, and the presence of the river would provide greater security on this side from attack by hostile forces. Another feature which may be remarked was the discovery of a crude form of pebble mosaic decorating the concrete roofs of the ruined palaces in this portion (Plate XV, *a*). A perspective drawing of the River Front of the Kotla, as restored on the available evidence existing on the site, has also been prepared by Mr. Page to illustrate its probable appearance in the 14th Century, and will be embodied in his Memoir. It is also hoped to include in the same publication a brief illustrated account of the course of Timur's campaign in the immediate vicinity of Delhi, in the light of contemporary historical records and a study of the local topography.

**Hindu and Buddhist Monuments. (Northern Circle.)**

The major part of Mr. Sahni's excavations at Sarnath during 1919-20, was devoted to the further clearance of Monastery No II, which is a structure of the Kushan period; and to the further examination of the supposed drain, a part of which had been exposed in 1907-1908. This so-called drain was at first thought to have been intended for carrying off rain water from the central block of Monastery No. I, which dates from the 11th Century, but Mr. Sahni's work of this year shows that it was not a drain at all but a subterranean passage, 160 feet long, which led to a small shrine at the westernmost extremity of the site. This passage commences 34 feet to the west of the central block of Monastery No. I, its floor, which is about 10 feet below the present ground level, being reached by a well constructed flight of stone steps still in good preservation (Plate XV *b*). The ceiling of the passage at its entrance is so low that

the votary must have crawled here, perhaps as a mark of reverence to the holy shrine to which the passage originally led. The entrance itself and the walls of the passage for a few feet on either side are built of stone but the rest of the structure is in brick, the bricks being of the same dimensions as those used in Monastery No. 1. That the passage was intended to be subterranean is proved by the fact that the bricks of its walls are chiselled and neatly laid on the inside while the outside is coarse and uneven, as it was evidently not meant to meet the eye. The inner faces of the walls were also plastered, but this plaster has peeled off everywhere except along the bases. At the distance of 87 feet from the entrance of the passage is a small chamber with its roof raised above the rest of the passage so as to allow ventilators of some kind being inserted for the admission of light and air, but despite this precaution, Mr. Sahni says that the greater part of the passage must have remained in darkness and he is of opinion that the small niches with corbelled tops which occur in the walls were meant to hold earthen lamps. The shrine itself to which this interesting subterranean passage led and which must have been of unusual sanctity was a small chamber measuring only 8 feet 10½ inches by 7 feet 6 inches internally. It is now unhappily a complete ruin, nothing remaining but the bases of its walls. Mr. Sahni judges that the roof must have been of the same design as that of the shrine of Vajravarahi exposed in the previous year and that like the latter it was supported on corner pilasters.

Figures *a* and *b*. Plate XVI, show the interesting and exceptionally complete Maharatta Fort at Talbahat in the Jhansi District, which has recently been carefully overhauled by the Archæological Department and the conservation of which is to be taken in hand in the near future.

**Western Circle.**

At two places in the Central Division of the Bombay Presidency large masses of débris were removed from two old forts in order to expose remains of ancient buildings buried under them. The most important of these undertakings was at the ancient seat of the Peshwas in the Shanivara Peth of Poona city locally known as the Shanwar Wada. This Palace of the Peshwas stood within a fortified area which at one time was beautifully laid out as a garden, though in recent times a court-house had been built on the plinth of the old palace, right in the centre of the enclave. The area surrounding this court was partly excavated and a number of fountains, cisterns, foot-paths and gardens were brought to light, most interesting among the discoveries being an imposing fountain built on the same platform on which the main palace once stood. This fountain contains 196 different jets distributed symmetrically inside a vast expanded lotus of sixteen petals, which is not only the largest fountain known in India but also unique in its form. The petals of the lotus are enclosed in a circular basin measuring 79' 4" in circumference and 25' 3" in diameter. The calyx of the lotus consisted of five cylindrical stems each containing a jet. All of the jets in this fountain were made of pure copper, as were the pipes which fed the different jets, the entire system being fed by a copper pipe of 4" diameter. The other fortress in which, with the permission of the General Officer Commanding, excavations were carried out, was Ahmadnagar.

These excavations had been begun by Mr. Bhandarkar in 1913 and a number of buildings had been unearthed in front of the ancient palace used as the Brigade headquarters. The latest discoveries made here include a large tank lined with heavy masonry walls eleven feet in thickness, and, on three sides of this tank, chambers with domes and vaulted roofs, their walls covered with exquisite stucco ornament. One of these chambers raised somewhat higher than the rest appears to have been used by the Nizam Shahi Sultans of Ahmadnagar as a pavilion from which to watch the sport of animali or their zenana ladies in the water of the tank.

At Sholapur a fine old temple of the "Chalukyan" type dating from about the 11th Century A.D. was exhumed from beneath the inner wall of the Fort (Plate XVIII), which had been built originally at the time of the Adilshahi Sultans of Bijapur, and rebuilt, according to inscriptions on its walls, during the reign of Ali Adil Shah I in 1578 A.D. In order to expose to view the ancient remains peeping out beneath its foundations (Plate XIX, *a*), a section of the entire wall had to be demolished and it was then found that the greater part of the temple comprising the porch and most of the *mandapa* and *garbhagriha* was intact (Plate XIX. *b*), and that the builders of the Fort had been at some pains to save as much as they could of the earlier structure, by shoring up broken lintels with stone pillars and filling the interior with heavy stones, before they proceeded to superimpose their own walls above it. The porch and the *mandapa* were open on all sides and seats with back rests ran along the sides of both. There were two paved paths for circumambulation, one around the *garbhagriha* or plinth and the other below the level of the plinth. There was also an underground chamber beneath the *mandapa*, the roof of which was supported by four heavy square pillars of stone. In the course of the excavations two images of attendants of Siva were unearthed along with numerous fragments of other images and carvings, but no inscriptions were recovered.

**Eastern Circle.** The excavations carried out by Mr. K. N. Dikshit at Bulandibagh near Patna during the months of June and July, 1919, were noticed in last year's Report as also were Mr. Haranandan Panday's excavations at Belwa in the Saran District which were continued until August 1919. Neither of these works, therefore, need be recapitulated here. In February 1920, the Nalanda excavations were resumed by Pandit Hirananda Shastri and continued until the end of June. The work here centred on site No. 1 and its neighbourhood, particularly the area outside the main Monastery to the south and south-east. Here one corner, namely, the north-east angle, of another building seemingly of a monastic type, has been brought to light, which appears to be contemporary with Monastery B, and which like the latter apparently stands over the remains of an earlier building which may or may not have been contemporary with Monastery A, provisionally called the original structure at site No 1. The new building in the small area cleared this year has already yielded several small statuettes in stone and metal, some of which Pandit Hirananda Shastri considers to be of special interest for Mahayana iconography in that the divinities represented are unusual. The high brick structure standing in the centre of the courtyard at site No. I was also examined this year, but the precise nature and purpose of the

building could not be determined. Extensive clearance was also effected on the east and more particularly on the south and south-east of the large stupa at site No. 3, in the course of which a number of sculptures of interest and value were unearthed, notable among them being those shown in Plates XX & XXI the first two of which Pandit Hirananda Shastri would like to identify with Nagarjuna and Kotisri respectively, although these identifications can only be regarded as tentative at present.

In the Southern Presidency Mr. Longhurst took occasion to examine a number of little known sites in connection with his study of Pallava architecture and interesting notes on them are published in his Annual Report for the year. Notable among the monuments in question are the cave temple at Undavali in the Guntur District and the triple-celled Siva temple at Mogalarajapuram illustrated in Figs. *a* and *b* of Plate XXII. **Southern Circle.**

An interesting and important sculptured slab, pictured in figure *b* of Plate XXIII, was found at Ghantasala in the Divi taluk of the Kistna district by Mr. C. R. Krishnamacharlu, Telugu Assistant to the Government Epigraphist, where it was lying on the ground at the entrance to the modern temple of Ramaswami. The fragment, which is now in the Madras Museum, is a limestone slab measuring 2′ 7″ in height, 2′ 10″ in width and 7½″ in thickness, containing a finely carved bas-relief in the style of the Amaravati sculptures. According to M. Foucher, who has been good enough to furnish me with the following note on the subject, the medallion represents the return to Kapilavastu of the horse and groom of the Bodhisattva Siddhartha after the latter's "Great Departure" from home and worldly life, and must obviously have belonged originally to some Buddhist monument. "In the upper left," writes M. Foucher, "King Suddhodana is seated, despondent-looking, on a high-backed throne; on his left Chandaka is shown kneeling before him and presenting to him in a kind of round basket the jewels discarded by his son. Behind Chandaka the horse Kanthaka, trembling and with his head hanging down, already shows premonitory signs of his impending death from a broken heart. One of the ladies of the court seems to lean on his back and weep, while two others, out of respect and regret for his departed master, prostrate themselves to touch his fore-feet. The entire zenana is full of agitation and sorrow. Most of the ladies raise their hands to their heads in the traditional attitude of despair, so often met with in the pictures of the Pari-Nirvana. In the foreground the fainting lady, whom two others rush to sustain in their arms, may perhaps be recognised as Yasodhara, the forsaken wife of the Bodhisattva. On both sides of the slab, other ladies are taking part in the same scene. On the left we can see quite clearly the two different costumes they used to wear. That the central part of the scene is thus framed in a circular medallion and not in a square panel occupying all the available surface of the slab deserves to be noted. To my mind this curious disposition can be explained only through the fact—already suggested to me by the study of the Sanchi and Barhut monuments—that, originally, the decoration of these old railings was entirely made of lotuses; and for a long time after, the round form persisted, not only on

railings but even as seems to be the case here, on the encasing slabs of the stupas themselves."

The only excavation carried out in the Southern Circle during the year was at Salihundam in the Ganjam District, a little village situated on the south bank of the Vemsadhara river in the Chicacole Taluk. On the south side of the village are two small rocky hills about 400 feet in height, the eastern one of which contains important Buddhist remains on its summit and eastern slopes. The site was brought to the notice of this Department by Rao Sahib G. V. Ramamurti Pantulu of Parlakemedi in 1919, and the place was subsequently visited by the Government Epigraphist. As the remains were then mostly below ground, Mr. Krishna Shastri was not able to examine them properly, and at his suggestion Mr. Longhurst undertook preliminary excavations in the early part of 1920 and has published a detailed account of them in his Provincial Report. The monuments which all belong to the later Buddhist period, though they are constructed of bricks dating from an older age, included a large stupa approximately 46 feet in diameter and two smaller ones to the west of it measuring about 25 feet each. On the north-east overlooking the river is another small stupa and a further brick structure about 100 feet below the main monument and facing due east. Mr. Longhurst excavated the whole of the mound at this spot and traced out the plan of the building which proved to be a large apsidal-ended brick Chaitya now in a very ruinous condition. Fragments of a colossal image of Buddha originally about 12 feet in height were found broken across the chest, and with the upper portion missing. The construction of this figure out of large bricks and small pieces of stone bedded in good mortar, the whole being finished off in plaster, is particularly noteworthy.

The village itself yielded no fewer than twelve Buddhist images in stone and a stone votive stupa, among them being the large image of Marici illustrated in Plate XXIII, *a*. This admirable relief is too large to be removed with safety, and steps have therefore been taken to preserve it on the site.

**Burma Circle.**

In Burma no systematic excavation work could be undertaken by Mr. Duroiselle during the past year, but thanks to the interest taken by District Officials in Archæology, some important finds were nevertheless brought to light which are not without bearing on the political and religious history of the country. At Sameikshe village in the Thazi township, Meiktila District, there was unearthed a small standing image of Buddha in bronze in a brick chamber buried underground. The image dates apparently from the 13th or 14th Century A.D. and represents the Buddha Dipankara in the attitude of prophesying to Sumedha the latter's attainment of Buddhahood in the remote future (Plate XXV, *e*). His right hand is raised with the palm outward in the *abhayamudra* or "absence of fear" attitude. In the same neighbourhood are to be seen many pagodas in all stages of decay, from among the ruins of one of which has recently been found an image of a seated Buddha. Evidently the site, though now insignificant enough, must once have been an important one, and every additional fragment recovered from the ruins which may help to throw light on their unknown origin or history is of value.

In his Report for 1913, the Archæological Superintendent spoke of traces of Vishnuism being found at Prome, and it is satisfactory to record that further evidence of the same cult has been discovered during the year under report. It is contained in two sculptures, one representing a standing Vishnu and the other Sesha-sayi Vishnu or Vishnu lying on the serpent Ananta. Both are made of sandstone and are assigned by Mr. Duroiselle to the 8th or 9th Century, if not earlier. Of the few Hindu remains so far discovered in Burma it is noteworthy that the Vishnuite ones are commoner than the Sivaite.

During the year 1918-19 the discovery was reported of an encased stupa at Pagan which now proves to be of some antiquity, as is shown by certain finely modelled bronze figures belonging seemingly to the end of the 11th Century, which have been found in a relic chamber at its base. The most interesting of these were the two figures shown in Plate XXV, *a* and *b*, the former a Bodhisattva and the latter the Buddha. The Bodhisattva figure measures six inches in height and represents Maitreya seated on a lotus in the *lalitasana* posture. The right hand, which rests on the knee, is in the *varadamudra* or boon bestowing posture, while the left hand, which is brought a little before the breast, holds the stalk of a lotus. Another lotus rises from behind on the right side. The other statuette is about five inches in height and shows the Buddha seated cross-legged on a lotus, in the *bhumisparsa* or earth-touching attitude. He is flanked by two small figures whose hands are folded in adoration. The back of the throne is crowned with a chaitya, many examples of which are still to be seen at the present time.

Mr. Duroiselle reports also that while clearing the débris from around the Shwepyi-Seiku, a pagoda at Sagaing, some bronze figures have been discovered which once formed the contents of the relic chamber of that building. Among them is a figure of the Buddha seated on a circular pedestal with five *rahans* and two deer arranged around the pedestal. These somewhat crude figures evidently represent the incident in the Deer Park at Sarnath near Benares, where Buddha preached his first sermon and thereby set in motion the sacred Wheel of the Law (Plate XXV, *c*).

Among the most interesting discoveries made in Burma in recent years is that of some stone axe-heads found in the Pakokku District (Plate XXV, *d*). Mr. H. W. Hallowes of the Geological Survey of India, who has visited the find-spots and examined these axe-heads, is of opinion that some of these artifacts may date from the close of the Pliocene or the beginning of the Pleistocene period. They were found in association with human remains and a number of large fossil teeth, which according to Mr. Hallowes are probably the remains of some extinct species of Pliocene horse.

In Kashmir, the only excavation work carried out by Mr. Kak, the State Superintendent of Archæology, was at Harwan, a village situated two miles above Shalamar and identified, with tolerable certainty by Sir Aurel Stein, with the old Buddhist site of Shadarhadvana: "the grove of the six saints." Here Mr. Kak has brought to light a number of structures, the most important of which is a stupa built of rubble stones and Kashmir.

similar in plan to the stupas of Gandhara; and he has also unearthed a number of interesting carved tiles and other minor antiquities, some of them bearing the Buddhist creed inscribed upon them. These remains Mr. Kak is at present inclined to assign to the 4th or 5th Century A.D., but the data available are hardly sufficient to permit of his feeling certain on the point. Besides carrying out this excavation at Harwan, Mr. Kak made a tour in the Tahsils of Bhimbar and Rajauri which has resulted in bringing to notice a number of interesting monuments, the chief of which are the mediaeval temples at Saidabad in Bhimbar and Panjnara in Rajauri. These, Mr. Kak says, are in almost every respect similar to the temples of Kashmir and thus supply another valuable link in the chain connecting the art and architecture of Kashmir with that of the Indian plains. Along this old Imperial route into the Happy Valley several Sarais are still standing, which the Mughal Emperors erected at the various stages of the journey. Some of the Sarais are well built and handsome structures which would even now afford welcome shelter to travellers, if they were kept only a little cleaner.

**Sanskritic Epigraphy.**

Throughout 1919-20 Rao Bahadur Krishna Shastri continued to hold charge of the current duties of the Government Epigraphist for Sanskritic inscriptions in addition to his duties as Assistant Superintendent for Epigraphy, Southern Circle, the *Epigraphia Indica* being edited in the meantime by Dr. F. W. Thomas of the India Office, pending the appointment of a permanent successor to the late Mr. Venkayya. As his designation implies, the Government Epigraphist is the chief officer in the Archæological Department for inscriptional work, one of his principal duties being the editing of papers by other scholars in the Epigraphical field. A full statement of his work for the year would therefore seem perforce to include a discussion of the materials thus dealt with editorially; but as such a discussion tends to duplicate work and must inevitably involve a considerable amount of repetition of matter already presented in another Departmental Publication, it will suffice to refer here to only the more important of the documents handled and the more striking of the new points gleaned from them.

Mr. Krishna Shastri reports that, in all, four parts of the *Epigraphia Indica* were issued, *viz.*, Part VII of Vol. XIV and Parts I to III of Vol. XV, all under the editorship of Dr. Thomas. The material is both extensive and varied, and includes (1) the earliest copper-plate grant of the Gupta period thus far known, namely the Poona plates of the Vakataka queen Prabhavati Gupta in her thirteenth year (edited by Professor Pathak and Mr. K. N. Dikshit) which is the only one giving the genealogy of the Imperial Guptas; (2) the Penukonda plates of Madhava II which, if Dr. Fleet is correct in condemning as spurious all the other supposed plates of this dynasty, would seem to be the only admittedly genuine copper plates of the Ganga kings of Gangavadi; (3) the Anbil plates of Sundara Chola, being the earliest of the three copper-plate records that supply a genealogical account of the Cholas; (4) thirteen Kanarese records published by Dr. Barnett of the British Museum which range in date from approximately 900 to about 1200 A.D. and throw light not only on the history but also the social

organisation of the period; (5) the Neulpur grant of Subhakara in his 8th year, edited by Mr. R. D. Banerji, which brings to light a new dynasty of kings in the VIIIth Century who professed Buddhism, and (6) also by Mr. Banerji, a revised and corrected version of the important Bangarh grant of Mahipala I, wherein Mr. Banerji has contrived to read the supposedly missing or at least defaced date. In Mr. Krishna Shastri's opinion the most important of all the records published this year are the five Damodarpur copper-plates edited by Mr. Radhagovind Basak. The chief bearing of these old documents, which go back to the Gupta period, is on disputed points of Gupta chronology, but as they are in substance sale-deeds they incidentally show us the form of such documents in the early Vth Century and also clear up many obscurities in regard to official and technical terminology besides enlightening us as to the system of provincial government under the Guptas, the price of land, terms and purposes of freeholds, etc.

Coming now to the review of the epigraphical work done in the various circles, two sets of copper-plates were secured by the Indian Museum, Calcutta, one of which belongs to the Kalachuri king Somesvaradeva and the other to the Kadamba Shashthadeva II. The latter was published by Dr. Fleet in *Ind. Ant.*, Vol. XIV, p. 288, and the former, which gives the genealogy of the Kalachuri dynasty of Kalyani up to Somesvara in Sanskrit verse, will soon be published in the *Epigraphia Indica* probably by Professor D. R. Bhandarkar. The epigraphical work accomplished in the Eastern Circle consisted of the making of plaster-casts, inked-estampages and squeezes of the well-known Kharavela inscription in the Hathi Gumpha (Orissa) and of the preparation of 231 estampages of inscriptions in the Shahabad, Gaya, Puri, Cuttack and Patna districts for deposit in the Patna Museum. An odd copper-plate—one of a set of at least four—secured through the kind services of Babu Chuni Lal Ray, was found on examination to belong to the reign of the Vakataka king Pravara Sena II.

In the course of the extensive epigraphical programme, which is being vigorously carried out in the Southern Circle, 150 villages were visited and 721 fresh inscriptions secured. At Simhachalam, in the Vizagapatam district, some inscriptions had been copied early in the year 1899. As these are now being prepared for publication, a further search was made during the current year for any inscriptions which might have been passed over in 1899, and thus another 363 new records were obtained, which were transcribed on the spot and sent to the Press. The actual number of inscriptions acquired and examined therefore comes to 1,084—a figure not reached hitherto since the institution of the Department.

Fourteen sets of very interesting copper-plates were also examined. One of these, coming from Nellore, is a record of king Damodaravarman of the Ananda-gotra, issued from Vijaya-Kandarapura. On palæographical and other grounds the plates are assigned to the 3rd or 4th Century of the Christian Era. One point of interest in them is the attribute *samyak-sambuddhasya padanudhyatasya* applied to Damodaravarman. Evidently the king was a devotee of Buddha and perhaps the Archæological Superintendent, Southern Circle, (*vide* his *A. R.* for 1917-18, p. 33f) is right in surmising that the present Siva temple at Chezerla,

where stands an old lithic record in early Pallava characters of a king Kandara of the Ananda-gotra, must have once been a Buddhist Chaitya. Another is a grant issued in the reign of the Bana king Vikramaditya II (a contemporary of the Rashtrakuta Krishna II in the last decade of the 10th Century A.D.), one of whose records has already been published by Dr. Kielhorn in *Epigraphia Indica*, Vol. III, pp. 75ff. Still another is an Eastern Ganga copper-plate of Hastivarman, an early king of that dynasty. Two Vishnukundin grants of Madhavavarman II and Madhavavarman III are also of interest, the latter giving Trivaranagara (Tripura, Tripuri or Tewar near Jubbulpore) as the capital of Madhavavarman III of about the 6th Century A.D. This statement establishes the northern dominion of the Vishnukundins, though they profess to be the worshippers of the God of Sriparvata (in Kurnool), and justifies their close connection with the Vakatakas. The other copper-plates examined belong to the early Eastern Chalukyas, Jayasimha-Vallabha and Vishnuvardhana III, and to the Reddi kings Vemaya Reddi and Peda-Komati, who were themselves poets and patrons of learning.

Among the lithic records of the Southern Circle is one of the Rashtrakuta Nripatunga Amoghavarsha I, whose son Duddayya (not known to epigraphical records discovered so far) conferred a revenue settlement on twelve territorial divisions, by which these divisions paid only the *Siddhaya* tax and got remission of the other taxes known as *pullulavu*, *balavana* and *mayildere*. Similarly, also, a record of the early Western Chalukyas of the 9th Century A.D. confers certain privileges on the village officers, *gamundas*, *karanams* and the other people of a conquered village. From the Chola records we learn that the senior queen of the great king Rajaraja I was Ilangon Pichchi. A notable feature of the Epigraphical Report of the Southern Circle for the year is the description given in Part II, with plates and explanatory notes, of the labelled sculptures of Dharasuram of the 13th Century A.D. which represent scenes from the lives of Saiva saints. An old record in Vatteluttu characters coming from the Kongu country, belongs to the reign of a certain Varaguna-Parantaka who, is entitled *sarvabhauma* and jewel of the 'Chandraditya-Kula.' Perhaps he is to be identified with the Chera king Sthanu-Ravi or his immediate successor, both of whom were contemporaries of the Chola king Parantaka I.

Of the numerous Vijayanagara records in the collection, one, of the time of Achyutaraya, refers to a drought during which the cocoanut and areca plantations of the temple having withered away certain revised rates of *melvaram* rent were fixed to lighten the burden of the distressed cultivators. In A.D. 1710 a person called Todarmalla is said to have brought back the idol of the Conjeevaram temple from Udaiyarpalayam, whither it had been taken away for safe custody during the troublous times of the Muhammadan rule. This is perhaps the same Todarmalla whose metallic statue is found at Tirupati.

The Superintendent, Rajputana Museum, Ajmer, reports 24 inscriptions copied for the Museum during the year 1919-20. Of these three are in Persian, two in Hindi and the rest apparently in Sanskrit. One of the Hindi records refers to the reign of the emperor Aurangazeb and mentions also the *Maharaja-*

*dhiraja* Sri-Jesinghji and the latter's two sons Ranasingha and Kirti-singha. A dozen of the inscriptions are labels either on the pedestals or on the backs of Jaina images, both Svetambara and Digambara, and range in date from A.D. 1119 to A.D. 1664. Of the two or three stone slab inscriptions examined, a fragmentary record from the Siva temple of Tasa-i in the Alwar State, is made out to be part of a *prasasti* of a Vishnu temple (of Vasudeva Baladeva) erected by Ranaditya. This *prasasti*, like the Udaipur *prasasti* of Aparajita, is written in *vikatakshara* or acute-angled character, and is dated in the year 182. Mr. Gaurishanker Ojha is of opinion that this has to be referred to the Harsha Era and belongs therefore roughly to the 8th Century. The provision herein made for two *chattikas* (pitchers) of *Varuni* (wine) for the performance of worship in the temple on the twelfth day of the dark half of (every) month, leads Mr. Ojha to conclude that the temple must have been one dedicated not to Vishnu-Krishna proper but to Baladeva his half-brother, who is represented in the Puranas as having been very fond of drink.

In the Western Circle the important lithic record of the *Kshatrapa* Swami Jivadaman I discovered by Mr. Brook Fox, the Chief Engineer of the Junagadh State, on the top of Uparkot Fort was examined by Mr. Banerji, who contributes an article on it to the *Epigraphia Indica*. After an examination of the writing of the Sanchi inscription of Saka 201, which belongs to Jivadaman II, the father of the Kshatrapa Rudrasimha II, Mr. Banerji concludes that the Junagadh record belongs to the reign of Jivadaman I, the son and successor of Damajadasri I, and grandson of Rudradaman I. The dates of Jivadaman I so far known are Saka 100 and 119. Six copper-plate records recently purchased by the Trustees of the Prince of Wales Museum, Bombay, were also examined by Mr. Banerji. One of these, the grant of Abhimanyu of the Rashtrakuta family, has been published in *Eprigraphia Indica*, Vol. VIII, and perhaps also the second, which belongs to Dharasena IV of Valabhi, dated G. E. 326 and of which Mr. Banerji does not say anything, was published in *Indian Antiquary*, Vol. I. The others are: a record of Siladitya I of Valabhi, dated G. E. 290, on which also an article has been contributed by Mr. Banerji to the *Epigraphia Indica*; one of the Chalukya king Bhima I, V. E. 1086; a new Silahara grant of Chhadvaideva; and one of the Vijayanagar king Harihara II, dated Saka 1313. The Silahara grant gives the genealogy of the Rashtrakuta kings up to Krishna III (A.D. 940-961) and then supplies the names in the line of the feudatory Silaharas-Kapardin I, Pullasakti, Kapardin II, Vappuvanna, Jhañjha, Goggi and Chhadvaideva. This last mentioned had an elder brother called Vajjadadeva, who ruled before him. The gift intended to have been made in this king's reign, was carried out by his younger brother Chhadvaideva. Why the plates omit to mention the name of Vajjada I, who ruled after Goggi, is not certain. The inscription is, however, very important as it is the earliest known copper-plate grant of the Silaharas of the Konkan, and mentions the new name Chhadvaideva in the Silahara genealogy. The Vijayanagara grant of Saka 1313, is also interesting, inasmuch as it mentions Madhava, a minister of Harihara II, who is stated to have been the commentator of all the Upanishads and the author

of several Kavyas. This minister Madhava belonged to the Bharadvaja-gotra and was the son of Bhusurendra, which appears to be more an attribute than a proper name. Mr. Banerji is of opinion that this Madhava, who is reported in the plates to have gone with a mighty army to Govapura (Goa), the capital of the Konkan and to have expelled the army of the Muhammadans who had established themselves at the place, is identical with Madhavaraja, a brother of the Vedic commentator Sayanacharya. Mr. Banerji mentions also an odd plate of a grant of G. E. 206 of Maharaja Dhruvasena I discovered at Cambay—one of the earliest known grants of the Valabhi dynasty.

In the Northern Circle, estampages were prepared of 32 inscriptions. Three of these, *viz.*, the Manikarnika-ghat slab inscription,— the second lithic record found in the brahmanical city of Benares,—the Kasia stone-slab inscription and Don-Buzurg plates of Govinda-Chandra, will shortly be edited in the *Epigraphia Indica* by Mr. Daya Ram Sahni. The others consist of the Gupta and Nagari inscriptions engraved in the Durga-khoh Cave near Chunar and two inscriptions dated in V. S. 1213 and V. S. 1155 respectively, at Ramagaya near Vindhyachal.

**Epigraphy. Burma.**

Mr. Duroiselle records the discovery of six new inscriptions in Burma, of which two are in Talaing and four in Burmese. The two Talaing inscriptions mention the completion in 1470 by Queen Shin Sawbhu and her successor, King Dhammaceti, of repairs undertaken to seven pagodas at Pegu which had fallen into ruin. It is stated that the seven pagodas were originally built by Maha Subhaddha, queen of King Tissa. The importance of the inscriptions lies in the fact that they are the earliest lithic records that have yet been discovered in which the name of King Tissa is mentioned. He has hitherto been known as a legendary king, said to have been reigning at Pegu about the middle of the 8th Century A.D. He was the last of an unbroken line of kings who reigned at Pegu since its foundation in the 6th Century A.D., and whose rule lasted for nearly two centuries. Of the four inscriptions in Burmese referred to above three are of no great interest historically, but the fourth one, which was found by Mr. J. A. Stewart, I.C.S., at the Lunbogon village, Kyaukse District, and an estampage of which was forwarded to this Department for decipherment, is of some historical importance, as it confirms the events which are said to have taken place almost immediately after the taking of Pagan by the troops of Kubilai Khan in 1287 A.D. It makes mention of the three Shan brothers who ruled at Myinzaing, Hmetkhaya and Pinlè after the overthrow of the Pagan Monarchy. According to this document, the three brothers were called, 1-Athinkhayagyi, 2-Athinkhayangè, and 3-Sinbyushin; whereas in the Mhan-nan-Razawin, the standard history of Burma, they are called, 1-Athinkhaya, 2-Yazathingyan and 3-Thihathu. The inscription also incidentally records that Athinkhayagyi died first, and that Athinkhayangé succeeded him on the throne. The latter was subsequently succeeded by Sinbyushin, who ruled over the three places above mentioned. The stone itself was set up in 1329 A.D. Besides the above, three other inscriptions were examined by Mr. Duroiselle during the year. They were short epigraphs impressed on terra-cotta votive tablets bearing

effigies of the Buddha. One is written in Burmese, one in Talaing, and the other in Pali, in Burmese characters of about the XIth-XIIth Century A.D. Their interest lies in the fact that they are very rare records of their kind. The one in Burmese is the first of its kind that has yet been discovered, and philologically it is of some interest, as the short epigraph contains the word *nirāpan*. This shows in Mr. Duroiselle's opinion that at that time the Burmese were still using words derived, not from the Pali of Southern Buddhism, but from the Sanskrit, in which language were written the books of the Mahāyānist sect which was at Pagan before the introduction of the Pali Buddhism from Thaton in the middle of the XIth Century; or else from the Sanskrit of some sect of the Southern School with a Sanskrit canon, which may also have had adherents there.

The first part of the first volume of the *Epigraphia Birmanica* was published in January this year. It contains, as has been already stated before,* contributions by Mr. C. O. Blagden and Mr. Duroiselle on the four faces of the Myazedi Pillar found at Myinkaba near Pagan. The importance of these inscriptions in (1) Burmese, (2) Pali, (3) Talaing, and (4) Pyu has been made clear in the introductions published with them, and need not be repeated here. The following additional numbers of this new Epigraphia are expected shortly:—

(1) "Epigraphia Birmanica," Vol. I, Part II, containing the Môn inscriptions Nos. I-VIII, by Mr. C. O. Blagden, these forming the earliest Môn records which have yet been discovered in Burma.

(2) "Epigraphia Birmanica," Vol. II. Part I, containing the "Talaing Plaques on the Ananda" by Mr. Chas. Duroiselle;

Part II, containing an album of 87 plates in illustration of the above.

(3) "Epigraphia Birmanica," Vol. III:

Part I, containing the "Môn inscription No. IX" by Mr. C. O. Blagden. This forms the last of the series of the early Môn records.

(4) "List of inscriptions found in Burma," Part I, by Mr. Chas. Duroiselle.

**Moslem Epigraphy.**

In the field of Moslemic Epigraphy Mr. Yazdani reports that about fifty new inscriptions were discovered and inked rubbings of them prepared. Of these the following deserve special notice:—

(1) *Inscription of Mubarak Khalji, found at Khuldabad in the Aurangabad District.*—This is perhaps the earliest Muslim record in the Deccan and besides the name of Mubarak Khalji bears the name of his favourite, Malik Khusrau, who according to Farishta accompanied Mubarak Khalji in his campaign against Raja Harapal Deo of Deogiri, and, after the conquest of the place, received the 'ensigns of royalty' from the king. The inscription is dated 719 A.H., which corresponds with the date of the conquest of the Deccan by Mubarak Khalji, as given by Farishta and other historians. The style of writing of this inscription is somewhat crude and much inferior to the highly artistic script of contemporary Delhi epigraphs. The difference is evidently due to the fact that no calligrapher of the court had accompanied the expeditionary forces, while in the Deccan itself Muslim influence and culture had not yet been established.

*Archæological Survey of India, Annual Report 1916-17, Part I, page 22.

(2-3) *Two inscriptions of the reign of Sultan Abul Hasan Qutb Shah, found in the tomb of Miyan Mishk in Hyderabad City.*—Miyan Mishk was a secretary of king Abul Hasan, holding charge of the Royal key and also the high office of the Commander of the Carnatic troops. The inscriptions in Miyan Mishk's tomb are copies of two *farmans* of king Abul Hasan giving the details of the revenues apportioned for the maintenance of the tomb. The chief interest of the inscriptions, however, lies in their styles of writing. One of them is a fine specimen of the script called *Shikasta*, which, although evolved from *Nasta 'liq* characters, through the vagaries of the calligraphers' fancy assumed most subtle forms and in some cases became absolutely illegible. This style, however, on account of its freedom from the conventional rules, has been the popular script of India from the 16th Century onwards, and although its use, owing to the difficulty of reading it, has been given up recently, yet some of the old schools still favour it.

The other inscription of Miyan Mishk's tomb represents a style of writing called *Thulth*, derived from the *Naskh* characters and having a tendency towards ornamentation. A fine specimen of this class of writing is reproduced in E. I. M. for 1915-16 (Pl. VII).

(4-7) *Inscriptions at the Antur Fort.*—These relate to the reign of the Nizam Shahi king Burhan Nizam Shah II (1590-94) and mention the names of the illustrious Abyssinian general and statesman, Malik 'Ambar and his Lieutenant Farhad Khan. The latter was the officer who was deputed by Burhan Nizam Shah to fight with the Portuguese in 1592 and according to Faria-e-Souza (Vol. III, Pt. 1, ch. viii) Farhad Khan and his family were taken prisoners. The Portuguese historian further states that Farhad Khan and his daughters became Christians and went to Portugal; but according to the inscription at Antur he was at the latter town up to 1035 A.H. (1625 A.D.).

(8) *Inscription on the doorway of the 'Jami' Masjid, Hyderabad City.*—This epigraph is written in very fine *Taliq* characters and is perhaps the best specimen of this script in the Deccan.

(9) *Inscription of 'Ala-ud-Din Husain Shah of Bengal.*—The inscriptions of 'Ala-ud-Din's reign are of supreme importance for the study of the pictorial scripts of India as developed under the Musalman rulers of Bengal, and Mr. Yazdani is hoping to write a detailed article on them. In this inscription the curved letters have been arranged across the arrow-headed ones in a most pleasing manner, the motif being the bow and arrow. The facsimile of this inscription was received from the Archæological Superintendent in the Eastern Circle.

The majority of these inscriptions are to be published in the *Epigraphia Indo-Moslemica* for 1919-20.

**Archæological Chemist.**

The Archæological Chemist in India continued the work of preserving the antiquities at the Indian Museum, Calcutta, in the course of which work the following objects were treated by him:—

| | |
|---|---|
| Terra-Cotta and Stucco | 200 |
| Stone | 35 |
| Clay | 28 |

| | |
|---|---|
| Copper and bronze | 273 |
| Iron | 355 |
| Silver | 10 |
| Lead | 93 |
| Wood | 1 |
| Bone and Ivory | 12 |
| Paper | 1 |
| Glass | 6 |
| Miscellaneous | 7 |
| TOTAL | 1,021 |

Various fragments of birch bark manuscripts from Jaulian and several bronze figures from Nalanda were also successfully cleaned and preserved. Mr. Sana Ullah was also deputed to Nalanda, Madras, Delhi, Lahore and Sindh, at the request of the local officers, to give advice on particular problems at these centres. The object of his visits to Nalanda and Sindh was to investigate the problem of the decay of certain monuments, and his reports show that this decay is caused by mechanical disintegration through the crystallization of salts, which vary in composition at different localities. In Sindh it is potassium nitrate, formed in the soil through the agency of nitrifying bacteria; at Nalanda they consist of chlorides and sulphates of alkalies; and in the proximity of the sea, they are the sea-salts deposited by the sea-winds. In the rainy season they form a solution with water and penetrate the walls to a certain height by capillary action, and crystallize at the exposed parts in dry weather, causing disintegration thereby. The broken fragments fall off and a fresh surface is exposed for decay. This cycle is repeated over and over again with changes of weather, until, in course of time, the whole building may be reduced to dust. In the case of the larger monuments found in this country, it is not practicable either to leach out the injurious salts with water, or to render the walls absolutely waterproof. The stone preservatives found on the market are unsuitable for the protection of monuments against the action of these salts, and this problem is therefore still under investigation, our intention being to institute a series of practical experiments as soon as possible. At Madras the famous bronzes in the Madras Museum had begun to exhibit efflorescences which were spreading at an alarming rate, causing serious damage to their surface. The Archæological Chemist was deputed to report on the matter and it was found that the efflorescences consist of oxy-chloride of copper and, in his opinion, are caused by the action of the sea-salts present in the atmosphere of Madras. It has been decided to depute him again, at an early date, for a few months, to treat the affected bronzes. Mr. Sana Ullah was, also, sent to Delhi to advise regarding the preservation of the Mughal paintings in the Fort Museum, and to Lahore to devise means for the destruction of certain injurious insects that were doing serious damage to the textiles at the local museum. He visited Ajanta also, in order to report on the composition of the pigments of the frescoes there, in anticipation of their handling by an Italian expert.

Museums.

An account of the year's work in the Archæological Section of the Indian Museum at Calcutta is given in Appendix E to this Report. The following are brief notes on recent acquisitions at other Museums.

*Peshawar Museum.*—No further excavations were undertaken in the Frontier Circle, but certain interesting additions were made to the Peshawar Museum, thanks to the kindness of Mr. Pears, who placed certain sculptures with the Museum on loan. Two of these are unusually well preserved and clear examples of familiar subjects. In one of them the Birth of the Buddha is depicted in a panel between two stunted Indo-Corinthian pilasters. In the centre of the composition. beneath a *sal* tree whose branch she clutches, stands Maya, the mother of Buddha, supported by her sister Mahaprajapati. From Maya's right side issues the newly born haloed Bodhisattva who is being received by Indra on a cloth held in both hands. Behind Mahaprajapati is a female attendant with the right hand held to the mouth, the left hand bearing a leaf fan. The subject is, of course, one of the commonest in the Gandhara School, but this particular representation is of interest, because of the exceptional clearness with which it displays the costumes and head-dresses of the various figures, and because of its abbreviated form in which Brahma and some of the usual attendant figures are omitted. The second sculpture, figure *a* of Plate XXIV, is the false niche or gable of some stupa representing a section of a *vihara* with double dome (height 24"). The whole is divided horizontally into three panels showing three stages of the *abhinishkramana*: *viz.*—

(*i*) *The Life in the Palace* where the Bodhisattva is seen reclining on a draped couch with his wife Yasodhara seated at the foot, her hands resting on a small pedestal table.

(*ii*) *The preparation for the flight.*—In the centre we see the Bodhisattva seated on a couch with his left foot resting on a foot-stool. To him approaches his groom Chandaka bringing him his royal head-dress in preparation for his departure, while at either side crouches a sleeping female musician typifying the well known "sleep of the women."

(*iii*) The lowermost panel shows the actual departure of the Bodhisattva from his home, mounted upon his horse Kanthaka, whose feet are upheld by *yakshas* to prevent the noise of his hoofs from rousing the sleeping palace. On the left we see Mara in coat of mail armed with a bow and followed by an attendant similarly attired. To the right, the groom Chandaka holds aloft the royal umbrella, while behind him stands a haloed figure, apparently a deva and not the usual Nagara-devata.

Figures *b* and *c* of Plate XXIV illustrate two other objects of special interest in the Peshawar collection, which are now published for the first time although they are not new acquisitions. Figure *b* is the semi-hollow figure of a golden deer with branching antlers apparently used as an ornament, the style being Indo-Sassanian. Figure *c* is a very heavy golden bracelet of Perso-Scythic style with an interesting design of lions originally inlaid with

precious or semi-precious stones which are now unfortunately missing. The golden deer was recovered as treasure trove at Dhamtaur in the Hazara District and was made over to the Peshawar Museum by the Director-General of Archæology in India in 1907.

*Muttra Museum.*—On Plate XVII, c are illustrated three of the Gandhara sculptures recently acquired for the Muttra Museum by the Honorary Curator, Rai Bahadur Pandit Radha Krishna, in exchange for certain duplicates in his collection. These pieces are stated to have been found about a hundred years ago in the excavation of house foundations in the villages of Madhuban and Maholi near Muttra, but authentic information regarding them is not available. The fragmentary cross-bar of a Buddhist balustrade of the Sunga period shown in figure *d* of Plate XVII with a circular medallion depicting a caparisoned elephant with two riders, was excavated by Rai Bahadur Radha Krishna at the Gayati Tila in 1915, and the inscribed images of Buddha and the Bodhisattva shown in figures *a* and *b* of the same plate were acquired in 1918-19 by the same enthusiast. The former, which is headless, bears a Brahmi inscription dated on the 30th day of the 2nd month of *grishma* (the hot season) in the year 22, and states that this image of Buddha was installed on that date in the Pravarika-vihara, a monastery not otherwise known. The latter is a fragmentary pedestal with inscription dated in the Kushan year 20.

*Taj Museum.*—Four inscribed stones lying in the débris at Fatehpur Sikri were removed to the Taj Museum. These range in date from 714 A.H. to 1117 A.H. and all record the erection of mosques from which they had become detached. The only other additions were 20 drawings and original water-colours, chiefly of monuments and decoration in the Agra Fort, which were placed in the Taj Museum on loan from the Director-General of Archæology.

*Delhi Museum.*—Apart from coins, of which 237 new acquisitions were made, the chief additions to the Delhi collection consisted of specimens of calligraphy. Of these 60 were purchased, illustrating the work of no less than 53 different masters of the art reaching back in time to the 13th Century of our era, and including two of the sons of the Emperor Shahjahan. In addition to these, a *farmān* has also been acquired, which was issued by Sultan Abu Ṣaid, the grandfather of Babar, and which is perhaps the oldest undoubtedly genuine *farmān* known to exist in India. It is dated in 868 A.H. (=1463 A.D.)

*Patna Museum.*—The large number of 2,342 new acquisitions is reported from the Patna Museum, of which about one half were made in the Department of Archæology, the coin-cabinet being enriched by 316 new specimens. But no particulars of these antiques are yet available.

*Nagpur Museum.*—An inscribed stone of the time of Sultan Burhan Nizam Shah of Ahmadnagar, which seems to have served as a boundary pillar, is the only new acquisition of archæological interest at the Nagpur Museum apart from 216 coins added to the coin-cabinet. The inscribed stone comes from Kalamb in the Yeotmal District.

*Rajshahi Museum.*—Images of Ananta Balarama and Chamunda, and an inscribed image of Vishnu, besides a well preserved Navagraha slab, and a

few antiquities of less interest, have been added to the collection at Rajshahi.

*Lahore Museum.*—Two Tibetan banners representing Gautama Buddha and Avalokitesvara respectively and a large gilded brass figure of Vishnu of Nepalese workmanship are among the more interesting of the archæological acquisitions at the Lahore Museum, which records only 58 coins added to its collection during the year.

*Lucknow Museum.*—Besides certain important coins, *farmāns* and sculptures, a few interesting terra-cottas of the Maurya, Kushana and Gupta periods from Kosam (ancient Kausambi) were acquired for the museum. The catalogue of Gupta coins prepared by Messrs. Prayag Dayal and C. J. Brown has been completed and sent to press, and the rooms containing the Bhitargaon, Sravasti and Sankisa remains have been again opened to the public after complete re-arrangement.

*Museums of Western India.*—Of the various Museums within the limits of the Western Circle, Mr. Banerji gives a fairly detailed account in Appendix F to his Report for 1919-20. From this it appears that, apart from the large number of 2,962 coins, including 247 gold ones, the most important addition to the Archæological Section of the Prince of Wales Museum at Bombay was the set of six copper-plate grants purchased from the estate of the late Dr. Gerson da Gunha, which have already been described *supra* p. 35. For the Bombay Branch of the Royal Asiatic Society Mr. Banerji reports the acquisition of 121 coins, and for the Bijapur Museum a long and interesting list of acquisitions of the Adilshahi period, including several pieces of Chinese porcelain and various *sanads* and manuscripts of the Quran. The Baroda Museum and the Watson Museum, Rajkot, send in long lists of coins newly acquired, (that of the latter numbering 440 specimens), while the Rajputana Museum at Ajmer records the acquisition of five sculptures and nine portraits, with 25 coins.

**Listing of Monuments.**

*Delhi.*—15 monuments, namely 8 mosques, 1 tomb, and 6 miscellaneous buildings were recorded in the Palam and Shahdara Zails, and the outdoor work in connection with the listing in the Delhi Province is now completed, Volume II of the List of Ancient Monuments, Delhi Zail, has now been issued ; Volume III, the Mahrauli Zail, has been sent to press, while the IVth and last Volume, containing the lists for the remaining Zails of the Province, was almost ready for sending to the press at the end of the year.

*Bihar and Orissa.*—The Superintendent in the Eastern Circle reports that some of the monuments in the Tirhut Division were inspected by the late Mr. Panday and notes collected, which however had not been put together at the time of his death. The progress made in this work in the Province of Bihar thus leaves a good deal to be desired, and it is hoped that the Superintendent, as the responsible officer, will realise his duty in the matter and give early and increased attention to the revision of the existing list.

*Frontier Circle.*—As the Superintendent was on leave the greater part of the year and Khan Sahib Mian Wasiuddin, his *locum tenens*, was largely occupied with supervising conservation work, less was done in the direction of

listing monuments than usual in the Frontier Circle. Even so, thirty sites were examined and it is hoped that after Mr. Hargreaves' return the Peshawar office will be able to push on with this work, which in the case of the Frontier Circle consists chiefly in recording the position and the nature of mounds and other more or less complete ruins.

*Western Circle.*—In the Bombay Presidency portions of the Ahmadnagar and Kanara Districts were visited with a view to examine the numerous temples studded over the country which had never been properly examined by a trained Archæologist. In the Ahmadnagar District five high gateways of stones were discovered in a village called Tisgaon, which has now dwindled into insignificance but which at one time appears to have been a town of some importance. The building of these gates is attributed to Salabat Khan, Minister of the Nizam Shahi Sultans; but as there was more than one minister of this name it is not possible to fix the date of these gateways. In the Kanara District Bhatkal contains a large number of temples, both Hindu and Jain, which are of peculiar construction, resembling stone huts on poles with sloping roofs, but profusely covered with sculptures. Temples of somewhat similar design have long been known at Mudabidri in the South Kanara District, but there is this difference between the structures at the two places, namely that in those at Mudabidri the roofs are built in two or three tiers, while at Bhatkal most of the roofs have only a single tier.

In Central India the Eastern portion of the Nagod State and the Northern portions of the dominions of His Highness the Maharaja Holkar of Indore were thoroughly explored during the year under review. The monuments in the eastern part of the Nagod State were visited by Sir Alexander Cunningham forty-seven years ago, but no trained Archæologist had visited this tract during the subsequent half century. When the Imperial Gazetteer of India was revised in 1901, it was stated that this part of the country was very rich in antiquarian remains which had not been properly explored as yet. The exploration of this tract resulted in the discovery of a temple of the Gupta period at Bhumara on the top of a plateau twelve miles from Unchehra, and another small temple of the later Gupta period at Sankargarh, five miles north of the same place. Unfortunately, only the *garbhagriha* of the temple at Bhumara is still standing. This, however, contains a huge *eka-mukha-linga*, and the stone door frame of the *sanctum* is profusely ornamented, while in front of it are the remains of an exquisitely beautiful *mandapa*. The temple at Sankargarh lies at the foot of the hill of this name, and is a small square cell supported on 10 pillars the inter-spaces between which are filled with thin slabs of stone. Originally this temple had no *sikhara*, but one has been added on to its flat roof at some later date. This *sikhara* is built of small thin slabs of sandstone and brick. The door frame of this temple bears on its jambs the images of Ganga and Yamuna and the carvings indicate that the structure was built in the 6th Century A.D. The surrounding ground is covered with images and sculptures of the late mediæval period, among which images of Siva and Durga and *eka-mukha-lingas* predominate.

In the Indore State a preliminary survey was undertaken of the Northern Part of the dominions of His Highness the Maharaja of Holkar. This District is now known as the District of Garoth and consists of a compact block of territories with clusters of villages interpersed between the dominions of His Highness the Maharaja Sindhia of Gwalior, the Maharaja of Jhalrapatan and other States. Beginning with the Pargana of Sunel at the eastern extremity of this District the survey was concluded in the western extremity in the parganas of Antri and Manasa. A temple at Kethuli, though very small in size, is perhaps one of the best specimens of mediæval carving in Malwa. Its *mandapa* and *garbhagriha* bear a dado which is extremely beautiful and well proportioned. At Sandhara a large stone lintel covered with bas-reliefs was discovered in one of the Jain temples of this town. These bas-reliefs represent scenes from the Ramayana. Kohala, to the west of Bhanpura, yielded a number of mediæval temples in addition to the famous temple of the Boar incarnation of Vishnu which had been previously known. At Kukdeswar, to the west of Rampura, two temples were discovered, of which one is Jaina. Inside this temple a large slab covered with bas-reliefs was found built in the inner wall of the *mandapa*. The bas-reliefs represent scenes from the life of Krishna. Other ancient temples were discovered at Dhundheri between Kukdeswar and Manasar, at Kanjarda on the Northern extremity of the Indore State, at Antri, at Manasa, and at Vaikheda in the Jaora State.

In Rajputana, a closer examination of the masjid at Bayana known as the Ukha Mandir led to the discovery of a portion of the original structure which was partly demolished when the masjid itself was built. It appears probable that this structure was the temple of Vishnu erected by the Queen Chitralekha, a daughter of the ancient Saurasena Kings of this part of the country, in the Vikrama year 1012=955 A.D.), the erection of which is recorded in a large stone inscription discovered in the same place. The portion of this temple which remains intact appears to be a part of the original *mandapa*, the roof of which, supported on tall slender pillars, consisted of five domes—a large round one in the centre and four smaller round ones at the four corners. Two of the smaller domes and the central one with a portion of the carved flat roof were discovered in that part of the structure which was converted into a Hindu temple on the occupation of Bayana by the Jat Maharajas of Bharatpur.

**Treasure Trove.**

Four fresh finds of Treasure Trove Coins were reported from Bengal, 2 from Bihar and Orissa, 3 from the Punjab, 21 from the United Provinces and 17 from the Central Provinces during the year. In all 949 coins were examined in Bengal, 214 in Bihar and Orissa, 521 in the Punjab, 1,899 in the United Provinces and 7,299 in the Central Provinces. The majority of these coins were of common types but 1,807 coins were acquired for the various Museums in India. Among interesting finds may be mentioned the one in Dacca consisting of 346 silver coins of the early independent Sultans of Bengal, and another of 586 copper coins in Bareilly District of the United Provinces, of the so-called Mitra type and of various sizes. The occurrence of the name of Gupta in these coins confirms the view that " Mitra dynasty " is a misnomer. The coins acquired

by the Central Provinces Government number 811 and consist of the mediæval, Pathan, Suri and Mughal ages and include a few altogether unknown and rare specimens.

Tours. The tours of the Archæological Superintendents are chronicled in their respective Reports and need not be recapitulated here. The Officiating Deputy Director-General, Mr. J. F. Blakiston, visited Puri, Patna, Taxila and Agra and Dr. D. B. Spooner visited Taxila, Patna, Benares, Nalanda, Agra, Madras and Calcutta. My own movements embraced visits to Bombay, Agra, Muttra, Delhi, Lahore, Bharatpur, Dhar and Mandu, Ellora, Bhopal, Gwalior, Peshawar and Attock. I remained in camp at Taxila for nearly two months to supervise the exploration and conservation works which were in progress there.

Publications. The following publications were issued during the year:—

1. Annual Report of the Director-General, Part II for the year 1914-15.
2. Annual Report of the Director-General, Part II for the year 1917-18.
3. Memoirs of the Archæological Department, Nos. 1 to 5.
4. Annual Reports of the Southern, Western, Eastern, Northern, Frontier and Burma Circles as well as the Report of the Assistant Superintendent for Epigraphy, Southern Circle, for the year 1918-19.
5. *Epigraphia Indica*, Vol. XIV, Pt. 7, and Vol. XV, Parts 1 to 3.
6. Revised list of photo negatives in the office of the Archæological Superintendent, Southern Circle.
7. List of Muhammadan and Hindu Monuments, Vol. II, Delhi Zail (excluding Shahjahanabad).
8. South Indian Inscriptions, Vol. III, Part III.
9. *Epigraphia Birmanica*, Vol. I, Part I.

In addition to the above the texts for the South Indian Inscriptions, Vols. IV and V and *Epigraphia Birmanica*, Vol. I, Part II, Vol. II, Parts I and II and Vol. III, Part I were passed on to Press, and the publication of the detailed Annual Progress Reports of the Superintendent, Muhammadan and British Monuments, Northern Circle, for the years 1916-17 to 1918-19, which for reasons of economy had appeared in abridged form, was taken in hand.

Library. 474 volumes including periodicals were received in the Central Library during the year. Of these 180 were received as presents and 156 in exchange while 138 were purchased.

Photographs. A list of photographic negatives prepared during the year is published as Appendix D to this Report.

Personnel. I myself was on combined leave out of India from 1st March to 24th October, 1919, when Dr. D. B. Spooner, the Deputy Director-General, officiated for me and Mr. J. F. Blakiston officiated for the latter. Dr. Spooner however, was obliged to take privilege leave on medical grounds for eight weeks, *viz.*, from 16th June to 16th August, 1919, and during this period Mr. Blakiston held charge of the Director-General's office in addition to his own duties. On my return from leave in October, 1919, Mr. Blakiston was appointed Superintendent, Muhammadan and British Monuments, Northern Circle, in place of Mr. J. A. Page, who was placed on special duty for the purpose of completing certain Memoirs on the

Monuments at Delhi which he had in hand. Mr. K. N. Dikshit officiated for the Superintendent, Eastern Circle, until 2nd September, 1919, after which he reverted to his appointment in the Lucknow Museum. Rai Bahadur Daya Ram Sahni was confirmed as Superintendent on the 2nd September, 1919, and transferred to the Eastern Circle temporarily and Pandit V. Natesa Aiyar was transferred from the Frontier to the Northern Circle, Lahore, in place of the Rai Bahadur. Subsequently, Mr. Sahni was re-transferred to Lahore and Mr. Aiyar to the Eastern Circle. Khan Sahib Mian Wasi-ud-din officiated for the Superintendent in the Frontier Circle during Mr. Aiyar's absence on furlough and continued to do so until Mr. H. Hargreaves took over charge from him on return from military duty on 17th December, 1919. It is sad to have to record here that Mr. Harnanandan Panday, Assistant Superintendent in the Eastern Circle, died of pneumonia on 25th November, 1919. Mr. Taw Sein Ko retired from Government service from 7th December, 1919, and Mr. Chas. Duroiselle was appointed Superintendent, Burma Circle, in his place. The post of Assistant Superintendent for Epigraphy in Burma, which was sanctioned for six years only, was abolished on the retirement of Mr. Taw Sein Ko.

The designation of the Assistant Director-General of Archæology was changed to Deputy Director-General of Archæology.

**Scholarships.**

The Sanskrit Scholarship was awarded to Mr. Madho Sarup Vats, M.A., of the Punjab University, who joined on the 5th March, 1920. The other scholarship remained vacant throughout the year. The architectural scholarship was held by Mr. J. F. Seervai. In Burma Maung Ba Aung, B.A., who was awarded the Archæological Scholarship in 1918, resigned it after remaining in the Department for a little over a year.

JOHN MARSHALL,

*Director-General of Archæology.*

## APPENDIX A.

*Special grants-in-aid.*—The following allotments were made out of the special grant of one lakh provided by the Government of India for the year 1919-20 :—

| | Rs. |
|---|---|
| Assistant Director-General's Salary | 9,600 |
| Assistant Director-General's Travelling Allowance, Contingencies including Local Allowance | 5,000 |
| Archæological Chemist's pay | 4,700 |
| Archæological Chemist's Travelling Allowance and Contingencies | 2,909 |
| Conservation at Sanchi | 5,000 |
| Conservation at Taxila | 10,000 |
| Purchase of Antiquities | 2,025 |
| Library | 3,000 |
| Publication of Bakshali Manuscripts | 3,400 |
| ,, Dr. Francke's Report | 5,000 |
| ,, Sanchi Monograph | 4,000 |
| Burma | 11,100 |
| Bombay | 18,500 |
| Bihar and Orissa (for Exploration at Nalanda) | 2,000 |
| United Provinces (for Excavation at Sarnath) | 3,000 |
| Punjab | 7,500 |
| Dr. Tessitori's pay | 1,200 |
| Dr. Tessitori's Photographer's pay, etc. | 1,000 |
| Bijapur Museum Show-cases | 975 |
| TOTAL | 99,909 |

## APPENDIX B.

*Expenditure on the Archæological Department for the year 1919-20.*

| | | Rs. |
|---|---|---|
| Southern Circle | Archæology | 20,745 |
| | Epigraphy | 27,437 |
| Western Circle | | 27,462 |
| Eastern Circle | | 35,340 |
| Northern Circle | Hindu and Buddhist Monuments | 18,458 |
| | Muhammadan and British Monuments | 23,502 |
| Frontier Circle | | 17,736 |
| Burma Circle | | 34,368 |
| Director-General of Archæology including Government Epigraphist and the Epigraphist for Moslem Inscriptions | | 1,05,300 |
| | TOTAL | 3,10,348 |

## APPENDIX B—*contd.*

*Expenditure on conservation, etc., including grants-in-aid from Imperial Revenue.*

| | | Rs. |
|---|---|---|
| Madras | | 37,820 |
| Bombay | | 1,34,688 |
| Central India | | 4,715 |
| Ajmer | | 1,494 |
| Bengal | | 13,673 |
| Bihar and Orissa | | 6,841 |
| Assam | | 1,927 |
| Central Provinces | | 15,919 |
| Punjab | Hindu and Buddhist Monuments | 3,714 |
| | Muhammadan and British Monuments | 31,668 |
| United Provinces | Hindu and Buddhist Monuments | 3,465 |
| | Muhammadan and British Monuments | 45,698 |
| Delhi | | 57,824 |
| Burma | | 61,652 |
| Sanchi (Central India) | | 5,000 |
| Taxila | | 13,860 |
| | TOTAL | 4,39,958 |

*Special Charges.*

| | Rs. |
|---|---|
| Salary of Archæological Chemist | 4,700 |
| Travelling and Contingencies of Archæological Chemist | 2,009 |
| Pay of Dr. L. P. Tessitori | 700 |
| Pay, etc., of Dr. L. P. Tessitori's photographer | 344 |
| Transport Charges of show-cases for Bijapur Museum | 975 |
| Antiquities | 565 |
| Library | 3,000 |
| Epigraphia Indica and Epigraphia Indo-Moslemica | 1,273 |
| Honorarium for editing Epigraphia Indica | 1,750 |
| Deputation of Mr. J. A. Page | 3,000 |
| TOTAL | 19,216 |

## APPENDIX C.

*Drawings and photographs prepared by the Department.*

| | | Drawings. | Photographs. |
|---|---|---|---|
| Southern Circle | Archæology | 12 | 145 |
| | Epigraphy | 5 | 92 |
| Western Circle | | 18 | 267 |
| Eastern Circle | | 4 | 138 |
| Northern Circle | Superintendent, Muhammadan and British Monuments | 18 | 75 |
| | Superintendent, Hindu and Buddhist Monuments | 18 | 111 |
| Frontier Circle | | .. | 34 |
| Burma Circle | | 13 | 104 |
| Director-General of Archæology | | 3 | 321 |
| | TOTAL | 91 | 1,287 |

## APPENDIX D.

*List of the photographic negatives prepared by the Office of the Director-General of Archæology in India during the year 1919-20.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 1—2 | Sanchi (Bhopal State) | Monuments, panoramic view, from S. | $8\frac{1}{2}\times6\frac{1}{2}$ |
| 3—4 | " | Ditto. | " |
| 5 | " | Stupa I, view from N. | " |
| 6 | " | " " N.E. | 12×10 |
| 7 | " | " " S.E. | " |
| 8 | " | Stupa II, view from E. | " |
| 9 | " | " pillar, inner face | $8\frac{1}{2}\times6\frac{1}{2}$ |
| 10 | " | " pillars 50 and 51, outer face | " |
| 11 | " | " pillars 51 and 52, outer face | " |
| 12 | " | Museum, general view from S.W. | " |
| 13 | " | Bracket tree (Cat. No. A24) | " |
| 14 | " | Asokan Lion Capital (Cat. No. A1) | 12×10 |
| 15 | " | Fragment of an Asokan pillar (Cat. No. A10a) | $8\frac{1}{2}\times6\frac{1}{2}$ |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 16 | Delhi (Qutb) | General view of the Qutb Minar area (E. portion) and Ala-ud-Din's unfinished minar . . . . . . . | 12×10 |
| 17 | ,, | Qutb Minar, from N.E. . . . . . . . . | ,, |
| 18 | ,, | ,, from S. . . . . . . . | ,, |
| 19 | ,, | ,, from S.E. . . . . . . . | ,, |
| 20 | ,, | ,, from S.E. . . . . . . . | 8½×6½ |
| 21a | ,, | ,, (Upper portion) . . . . . . | 12×10 |
| 21b | ,, | ,, (Lower portion) . . . . . . | ,, |
| 22 | ,, | Entrance doorway, detail . . . . . . . | 8½×6½ |
| 23 | ,, | The Qutb Mosque area, general view from S. W. . . . | ,, |
| 24 | ,, | ,, ,, ,, ,, . . . | 12×10 |
| 25 | ,, | The Qutb Mosque, view from W. . . . . . | ,, |
| 26 | ,, | ,, original mosque, S. façade . . . | 8½×6½ |
| 27 | ,, | ,, ,, E. façade . . . . | ,, |
| 28 | ,, | ,, ,, N. façade, E. half . . . | ,, |
| 29 | ,, | ,, ,, View of E. entrance . . | ,, |
| 30 | ,, | ,, ,, South gateway . . . | ,, |
| 31 | ,, | ,, ,, Colonnade behind the E. façade, detail of ceiling . . . | ,, |
| 32 | ,, | ,, ,, Window in N. façade, lintel carved with the birth scene of Krishna . . . . | ,, |
| 33 | ,, | ,, ,, ,, . . . | ,, |
| 34 | ,, | ,, lintel carved with figures of Ganesh, etc., and built into the plinth of the mosque, E. of the N. gate . . | ,, |
| 35 | ,, | ,, Chabutra plinth, west wall . . | ,, |
| 36 | ,, | ,, detail of plinth mouldings on N.W. . | ,, |
| 37 | ,, | ,, lower plinth, moulding on S.W. . | ,, |
| 38 | ,, | ,, Qutb-ud-Din's great screen, front view from E. . . . . | 12×10 |
| 39 | ,, | ,, ,, ,, from S.E. . . . | 8½×6½ |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 40 | Delhi (Qutb) | The Qutb Mosque, Qutb-ud-Din's great screen, broken jamb of upper subsidiary arch detail | 8½×6½ |
| 41 | " | " Qutbud-Din's great screen, Hindu surface carving, detail | " |
| 42 | " | " " " " " another view | " |
| 43 | " | " carving on a Jaina pillar | " |
| 44 | " | " colonnade, carved Hindu columns | " |
| 45 | " | " S. colonnade | " |
| 46 | " | " " | " |
| 47 | " | " Buddha figure carved on a pillar | " |
| 48 | " | " Altamash's screen extension on S., front view | 12×10 |
| 49 | " | " " " " | 6½×6½ |
| 50 | " | " " " detail | " |
| 51 | " | " Altamash's S. colonnade | " |
| 52 | " | " Southern gateway of Altamash | " |
| 53 | " | " Altamash's northern prayer chamber | " |
| 54 | " | " Inscribed and carved stones found during the clearance of Altamash's extension | " |
| 55 | " | " Fragments of circular courses of dome masonry probably of Altamash's time | " |
| 56 | " | " Altamash's gateway and Ala-ud-din's S. gateway, general view | " |
| 57 | " | " Ala-ud-Din colonnade on S.E. | " |
| 58 | " | Alai Darwaza : N. façade | 12×10 |
| 59 | " | " S. façade | " |
| 60 | " | " detail of marble and red stone panels from S. | " |
| 61 | " | " detail of saracenic carving on the jamb of the arch and on the plinth moulding from N.W. | 8½×6½ |
| 62 | " | " detail of carving on exterior, from W. | " |
| 63 | " | Altamash's tomb : S. façade | " |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 64 | Delhi (Qutb) | Altamash's tomb, interior view . . . . . . | 12×10 |
| 65 | ,, | ,, stone with Hindu carving on reverse . | 8½×6½ |
| 66 | ,, | ,, ,, ,, ,, . | ,, |
| 67 | ,, | Ala-ud-din Khalji's Madrasa, building on W. side of quadrangle | ,, |
| 68 | ,, | ,, ,, S. façade of court . . . | ,, |
| 69 | ,, | ,, ,, remains of the gate in the E. façade . . . . | ,, |
| 70 | ,, | Iron pillar, view from N.E. . . . . . . | 12×10 |
| 71 | ,, | ,, ,, . . . . . . | 8½×6½ |
| 72 | ,, | Copy of a photograph published in Saladin's L'Architecture Musulman. Volume I, p. 35 . . . . . . | |
| 73 | ,, | The Sanderson Memorial Sundial . . . . . | ,, |
| 74 | ,, (Nizamuddin) | Jamaat Khana, interior view showing pendantives . . | ,, |
| 75 | ,, | Tomb of Abdur Rahim, Khan-i-Khanan, from N.W. . . | ,, |
| 76 | Delhi | Humayun's Tomb, decoration at the springing of the dome . | ,, |
| | | HYDERABAD STATE. | |
| 77 | Daulatabad (Fort) | Baradari, general view, from N.E. . . . . . | |
| 78 | ,, | Fortifications and the Minar, view from the Baradari . . | |
| 79 | ,, | ,, view from the Baradari . . . . | |
| 80 | ,, | ,, another view . . . . . . | |
| 81 | ,, | ,, view from the Kamargah-Darwaza. . . | |
| 82 | ,, | ,, another view . . . . . . | |
| 83 | ,, | Minar and Fortifications, view from the Kamargah Darwaza | |
| 84 | ,, | Door leading to the dark passage, cornice, etc., etc. . . | |
| 85 | ,, | View of the moat from near the Jharoka . . . . | |
| 86 | ,, | View of the moat from near the Ram's head Bastion (East) . | |
| 87 | ,, | View of the moat from the Ram's head gun Bastion . . | |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 88 | Daulatabad (Fort) | Chini Mahall façade, from S.W. . . . . . | |
| 89 | " | Gate between Chini Mahall and Naqqar Khana . . . | |
| 90 | " | Naqqar Khana with Minar in the back-ground . . . | |
| 91 | " | Sunahri Mahall . . . . . . . . | |
| 92 | " | Kala-Kot Darwaza, façade showing bastions, from E. . . | |
| 93 | " | Kala-Kot-Darwaza, inner gate . . . . . . | |
| 94 | " | Jami' masjid . . . . . . . . . | |
| 95 | " | Minar and Citadel, view from the temple near the Maha-Kot Darwaza . . . . . . . . . | |
| 96 | " | Minar and Citadel, view from the roof of the Maha-Kot . | |
| 97 | " | Minar and Citadel, view from the roof of the Nizam Shahi Darwaza . . . . . . . . . | |
| 98 | " | Minar and Citadel, view from the Ghat . . . . | |
| 99 | " | Maha-Kot Darwaza . . . . . . . . | |
| 100 | " | Delhi Darwaza (North Gate) . . . . . . | |
| 101 | " | Fathabad Darwaza (West Gate) . . . . . | |
| 102 | " | Nizam Shahi Darwaza (South Gate) . . . . . | |
| | | PUNJAB. | |
| 103 | Harappa (Montgomery District) | Seal . . . . . . . . . . . | $8\frac{1}{2} \times 6\frac{1}{2}$ |
| 104 | Taxila, Bhir Mound | General view of trench, from W.S.W. . . . . | " |
| 105 | " | General view of trench, from E. . . . . . | " |
| 106 | " | East end of trench, from W.S.W. . . . . . | " |
| 107 | " | East end of trench, from West . . . . . . | " |
| 108 | " | Pillars 9 and 6, from East . . . . . . | " |
| 109 | " | Room 20 in trench, E. side, from South, showing different strata in deep digging . . . . . . . | " |
| 110 | " | Room 21, from S.S.W. . . . . . . . | " |
| 111 | " | Pillar in room 42, from N.E. . . . . . . | " |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 112 | Taxila, Bhir Mound | Pillar in room 42, closer view . . . . . . . | 8½ × 6½ |
| 113 | ,, | Stone dish, broken (No. 1333) . . . . . . . | ,, |
| 114 | ,, | Specimens of pottery and a terracotta mould (Nos. 538, 219, 304 and 1222) . . . . . . . | ,, |
| 115 | ,, | Specimens of pottery (Nos. 747 and 582) . . . . | 6½ × 4¾ |
| 116 | ,, | ,, ,, (Nos. 246 and 1104) . . . . | ,, |
| 117 | ,, | Terracotta plaques (Nos. 66, 128, 359 and 1270) . . . | 8½ × 6½ |
| 118 | ,, | ,, ,, toy bull (No. 187) . . . . . . | ,, |
| 119 | ,, | ,, ,, toys (Nos. 225, 1 and 1955) . . . . | ,, |
| 120 | ,, | ,, ,, toys, vases, etc. (Nos. 540, 740 and 1942) . . | ,, |
| 121 | ,, | Iron objects (Nos. 765, 96, 638, 1459, 135, 1683, 381, 499, 1686 and 637) . . . . . . . . . . . | ,, |
| 122 | ,, | Small iron stool and a copper bell (Nos. 1773 and 406) . . | 6½ × 4¾ |
| 123 | ,, | Copper objects (Nos. 1782, 1450, 940, 1042, 112, 1949, 628, 113, 1150 and 205) . . . . . . . . . | 8½ × 6½ |
| 124 | ,, | Copper object (No. 1619) . . . . . . . . | 6½ × 4¾ |
| 125 | ,, | Bone objects (Nos. 140, 324, 1397, 1829, 2090, 832, 422 and 1513) . . . . . . . . . . . | 8½ × 6½ |
| 126 | ,, | Fragments of agate objects and glazed potsherds (Nos. 1300, 1885, 1245, 560, 1964 and 1759) . . . . . . | ,, |
| 127 | ,, | Seals (Nos. 116, 427, 438, 542, 321 and 2004) . . . | ,, |
| 128 | ,, | Gold ornaments and stone objects (Nos. 227, 1858, 2078 and 1141) . . . . . . . . . . . | 6½ × 4¾ |
| 129 | ,, | Decorative copper objects and a bead of agate (Nos. 93 and 1939) . . . . . . . . . . . | ,, |
| 130 | Taxila, Sirkap | North end of long trench running from N. to. S. from S. . | 8½ × 6½ |
| 131 | ,, | General view of cross trench running N.W. by S.E. from N.W. . . . . . . . . . . . | ,, |
| 132 | ,, | Junction of straight and cross trenches from N.N.W . . | ,, |
| 133 | ,, | N.W. extremity of cross trench from S. . . . . | ,, |
| 134 | ,, | N.W. extremity of cross trench from S.E. (Rooms 23-36) . | ,, |
| 135 | ,, | Room 19 (where jar was found) in cross trench from S.W. . | ,, |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 136 | Taxila, Sirkap | N.W. extremity of cross trench from N.E. (Rooms 1-22) | 8½ × 6½ |
| 137 | ,, | Earthen drain pipe (broken) (No. 1137) | 6½ × 4¾ |
| 138 | ,, | Specimens of Pottery (Nos. 1108 and 1109) | 8½ × 6½ |
| 139 | ,, | ,, ,, (Nos. 412 and 525) | ,, |
| 140 | ,, | ,, ,, (Nos. 1303 and 1090) | ,, |
| 141 | ,, | ,, ,, (Nos. 1483 and 1366) | ,, |
| 142 | ,, | ,, ,, | ,, |
| 143 | ,, | ,, ,, | 8½ × 4½ |
| 144 | ,, | ,, ,, | 8½ × 6½ |
| 145 | ,, | ,, ,, | ,, |
| 146 | ,, | ,, ,, | ,, |
| 147 | ,, | Earthenware articles (Nos. 1631, 18, 1484, 1138, 1468, 822 and 8561) | ,, |
| 148 | ,, | Curry stone with the grinding stone No. 561 | 6½ × 4½ |
| 149 | ,, | Female stone statuette No. 910, front | 8½ × 6½ |
| 150 | ,, | ,, ,, ,, back | ,, |
| 151 | ,, | Stone plaques (Nos. 299 and 695) | ,, |
| 152 | ,, | Stone sealings and an agate finger ring (Nos. 1003, 615-616 and 933) | 8½ × 6½ |
| 153 | ,, | Stone sealing, inscription on back of No. 615 | 6½ × 4¾ |
| 154 | ,, | Whetstone and touchstone (No. 7979) | ,, |
| 155 | ,, | Iron pan (No. 1255) | ,, |
| 156 | ,, | Iron objects (Nos. 177, 1597, 1314, 343 and 1555) | ,, |
| 157 | ,, | Iron object (No. 131) | ,, |
| 158 | ,, | ,, ,, | 8½ × 6½ |
| 159 | ,, | Iron pans | ,, |
| 160 | ,, | Iron objects | ,, |
| 161 | ,, | Iron implements | ,, |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 162 | Taxila, Sirkap | Copper and iron pans . . . . . . . . | 8½ × 6½ |
| 163 | " | Copper dish and ladle . . . . . . . . | " |
| 164 | " | Copper dishes found together (No. 927) . . . . . | " |
| 165 | " | Copper pan (No. 925) . . . . . . . . | " |
| 166 | " | Copper measuring glass (No. 1562) . . . . . . | " |
| 167 | " | Copper objects . . . . . . . . . . | " |
| 168 | " | Copper statuette (No. 1316) . . . . . . . | " |
| 169 | " | Copper moulds and casts (No. 712) . . . . . . | " |
| 170 | " | " " " . . . . . . | " |
| 171 | " | " " " . . . . . . | " |
| 172 | " | Ivory objects (Nos. 1559, 1617, 1235 and 1680) . . . | 6½ × 4¾ |
| 173 | " | Silver dish in repousse (No. 933) inside the jar . . . | 8½ × 6½ |
| 174 | " | " " " " " . . . . | " |
| 175 | " | Gold jewellery (No. 933) inside the jar . . . . . | " |
| 176 | " | Vase of glass (No. 933) inside the jar . . . . . | " |
| 177 | " | Neck of glass jug (front view) (No. 933) inside the jar . . | 6½ × 4¾ |
| 178 | " | Neck of glass jug (side view) (No. 933) inside the jar . . | " |
| 179 | " | Copper goblets (No. 933) inside the jar . . . . . | 8½ × 6½ |
| 180 | " | Copper dish and cups (No. 933) inside the jar . . . | " |
| 181 | " | Copper mirror and spoons (No. 933) inside the jar . . | " |
| 182 | " | Crystal objects (No. 933) inside the jar . . . . | 6½ × 4¾ |
| 183 | " | " " " " . . . . . . . . | 8½ × 6½ |
| 184 | " | Agate inside the jar . . . . . . . . . | " |
| 185 | " | Glass discs inside the jar . . . . . . . . | " |
| 186 | " | Stone glass and agate objects (No. 933) inside the jar . . . . . . . . . . | " |
| 187 | " | Shell and agate objects (No. 933) inside the jar . . . | 6½ × 4¾ |
| 188 | " | Stone and glass beads (No. 933) inside the jar . . . | 8½ × 6½ |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 189 | Taxila, Sirkap | Bone head in profile (No. 933) inside the jar . . . . | 6½×4¾ |
| 190 | ,, | Shell bangles (No. 933) inside the jar . . . . . | ,, |
| 191 | ,, | Stone weights (No. 933) inside the jar . . . . . | 8½×6½ |
| 192 | ,, | Agate objects (No. 933) inside the jar . . . . . | 6½×4¾ |
| | | RAJPUTANA. | |
| 193 | Bikaner | Bhanda Shah Temple, plan . . . . . . . | 6½×4¾ |
| 194 | Bikaner Fort | Inscription on Karan gate . . . . . . . | 8½×6½ |
| 195 | ,, | ,, ,, ,, . . . . . . . | ,, |
| 196 | Bikaner Fort (Museum) | Stone bracket . . . . . . . . . | 6½×4¾ |
| 197 | ,, | Stone figure of a goddess . . . . . . . | ,, |
| 198 | ,, | Stone image of Parsvanatha . . . . . . | ,, |
| 199 | ,, | Sati stone (carved with a mounted male and 3 female figures) | ,, |
| 200 | ,, | Stone sculpture—Siva and Parvati . . . . . . | ,, |
| 201 | ,, | Terracotta brick with foliage decoration, from Bhadra Kali Theri . . . . . . . . . | ,, |
| 204 | ,, | ,, ,, ,, ,, ,, ,, | ,, |
| 205 | ,, | Pottery, from the excavations at Do-Theri . . . | ,, |
| 206 | ,, | ,, ,, ,, ,, . . | ,, |
| 207 | ,, | Two terracotta seals from Do-Theri . . . . . | ,, |
| 208 | ,, | Copper coins from Do-Theri . . . . . . | ,, |
| 209 | ,, | Two terracotta female figures from Hanuman-garh . . | ,, |
| 210 | ,, | Carved bricks from Hanuman-garh . . . . . | ,, |
| 211 | ,, | Small stone antiquities from Kalivanga . . . . | ,, |
| 212 | ,, | ,, bone ,, ,, ,, . . . . | ,, |
| 213 | ,, | Sculpture on black stone from Lowa village . . . | ,, |
| 214 | ,, | Terracotta male figure from village Munda . . . | ,, |
| 215 | ,, | Terracotta elephant from village Munda . . . . | ,, |
| 216 | ,, | ,, railing pillar from village Munda . . . | ,, |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 217 | Bikaner Fort (Museum) | Terracotta railing pillar from village Munda . . . . | $6\frac{1}{2} \times 4\frac{3}{4}$ |
| 218 | " | Terracotta figures from village Munda . . . . . | " |
| 219 | " | Two terracotta heads from village Munda . . . . . | " |
| 220—22 | " | Terracotta bricks with foliage decoration found in the excavations at Pir Sultan-ki-Theri . . . . . . | " |
| 223 | " | Broken terracotta image from Pir Sultan . . . . . | " |
| 224 | " | Terracotta Garuda image from Pir Sultan . . . . . | " |
| 225 | " | Broken terracotta image from Pir Sultan . . . . . | " |
| 226—27 | " | Broken terracotta female figure from Pir Sultan . . . . | " |
| 228—29 | " | Broken terracotta male figure from Pir Sultan . . . . | " |
| 230 | " | Pottery, found in the excavations at Rangamahal . . . | " |
| 231—32 | " | " " " " . . | " |
| 233—34 | " | Broken terracotta Ganapati image from Rangamahal . . | " |
| 235 | " | Two terracotta dishes from Rangamahal . . . . . | " |
| 236 | " | Stone sculpture from Ratangarh . . . . . . | " |
| 237 | " | Terracotta male figure purchased from a potter of Rampur . | " |
| 238 | " | Terracotta image from Suratgarh Fort . . . . . | " |
| 239 | " | " " " . . . . . . | " |
| 240 | " | Terracotta brick with foliage decoration from Suratgarh Fort . . . . . . . . . . . . | " |
| 241 | " | Terracotta brick relieved with 2 female figures from village Vadapal . . . . . . . . . . | " |
| 242—51 | " | Terracotta male and female figures from village Vadapal . | " |
| 252 | " | Terracotta : *a* and *b* from Munda : *c*, *d*, *e* & *f* from Pir Sultan | " |
| 253 | " | " No. 210 from Do-Theri Nos. 411, 412 and 422 from Pir Sultan . . . . . . . . | " |
| 254 | " | Terracottas : *a* and *b* from Munda ; *c* from Pili Vanga ; *d* from Pir Sultan and *e*, *f*, *g* and *h* from Do-Theri . . | " |
| 255 | " | Terracottas : *a* from Do-Theri (animal figure) ; *b* from Ramsara ; *c* from Manik Theri ; *d* from Rangamahal ; *e* from Kali Vanga and *f* from Hanumangarh . . . . | " |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 256 | Bikaner Fort (Museum) | Terracottas: *a* and *b* from Rangamahal; *c* and *d* from Munda; *e*, *f* and *g* from Do-Theri | $6\frac{1}{2} \times 4\frac{3}{4}$ |
| 257 | " | Pottery: *a* from Munda; *b*, *c* and *d* from Pili Vanga; *e* from Rangamahal; and *f* and *g* from Do-Theri | " |
| 258 | " | Pottery: *a* and *b* from Do-Theri; *c* and *d* from Kali Vanga. | " |
| 259 | " | Pottery: *a* from Do-Theri; *b* from Pili Vanga; and *c* from Rangamahal. | " |
| 260 | " | Pottery: *a* and *b* from Kali Vanga; *c* from Udaramsara | " |
| 261 | Bhadra Kali Theri (Bikaner State) | Excavations: view of the side trench | $4\frac{3}{4} \times 3\frac{1}{2}$ |
| 262 | " | " " a brick wall | " |
| 263 | " | Excavations: Section of a brick wall brought to light during excavations made near the S.W. corner of the southern wall | " |
| 264 | " | Excavations: Sunken path (*i.e.*, wall bed) from the site of the E. gate to the N.W. corner | " |
| 265 | " | Excavations: round brick structure | " |
| 266 | Fathgarh (Bikaner State) | Ruins of the fort, a view from S. corner of enclosure | " |
| 267 | Kali Vanga (Bikaner State) | Excavations: Brick platform and clay balls | " |
| 268 | " | " Brick wall | " |
| 269 | Nohara (Bikaner State) | Jaina image in the Temple of Parsvanatha | " |
| 270 | Pir Sultan (Bikaner State) | Excavations: General view | " |
| 271 | Rangamahal (Bikaner State) | " view of Lakhi-ji-ka-Dhora | " |
| 272 | " | " at Lakhi-ji-ka-Dhora | " |
| 273 | " | View of a *baoli* near Lakhi-ji-ka-Dhora | " |
| 274 | " | View of a *baoli* near Lakhi-ji-ka-Dhora | " |
| 275 | " | View of Musan-ki-Theri | " |
| 276 | Udiramsara (Bikaner State) | Gavardhana | " |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| | | UNITED PROVINCES. | |
| 277 | Agra | The Taj: view from S. . . . . . . . . | 12×10 |
| 278 | " | " " " . . . . . . . . | " |
| 279 | " | Chhatri standing on the N. Bank of the Jumna: general view from the terrace of the Taj . . . . . . | 8½×6½ |
| 280 | " | Silver candle-stands . . . . . . . . | 6½×4¾ |
| 281—82 | Agra (Fort) | South side, general view . . . . . . . | 8½×6½ |
| 283 | " | General view showing Hathi Pol and Delhi gates, from outside (West) . . . . . . . . | " |
| 284 | " | General view showing the inner Amar Singh gate and portion of the inner and outer walls of the fort, from south . | " |
| 285 | " | " " " " " " . | " |
| 286 | " | Delhi gate, from N. W. . . . . . . . | " |
| 287 | " | Hathi Pol, inside view, from N. E. . . . . . | " |
| 288 | " | " " " . . . . . | 10×12 |
| 289 | " | " detail view of exterior, from S. W. . . . | " |
| 290 | " | " " " . . . | " |
| 291 | " | " " " . . . | 16½×6½ |
| 292 | " | Outer Amar Singh gate, general view from S. . . . | 8½×6½ |
| 293 | " | " " " . . . | " |
| 294 | " | " " " from S.W. . | " |
| 295 | " | The 2nd Amar Singh gateway in the inner wall, view from S. W. corner. . . . . . . . | " |
| 296 | " | View from S.W. corner of courtyard . . . . . | " |
| 297 | " | The 2nd Amar Singh gateway, entrance to the barbican guarding the gateway, front view from W. . . . | " |
| 298 | " | Darshani Darwaza, general view showing upper part, from S.E. . . . . . . . . . . | " |
| 299 | " | Darshani Darwaza, detail view from E. . . . . . | " |
| 300 | " | View showing a portion of the Bengali Burj and the bastion at the S.E. corner . . . . . . | " |

APPENDIX D—*contd.*

| Serial No. | Locality. | Description. | Size. |
|---|---|---|---|
| 301 | Agra (Fort) | Bengali Burj, general view from S. | $8\frac{1}{2} \times 6\frac{1}{2}$ |
| 302 | " | Bengali Burj, detail view from S.W. | " |
| 303 | " | Bhainsa Burj, detail view from S. | " |
| 304 | " | Bastion to S. E. of Bhainsa Burj | " |
| 305 | " | Water gate bastion, view from E. | " |
| 306 | " | Saman Burj, detail view from N.W. | " |
| 307 | " | " " from W. | " |
| 308 | " | Saman Burj and adjoining buildings, view from S.E. | " |
| 309 | " | Shah Jahani Burj, from S.E. | " |
| 310 | " | " " " | " |
| 311 | " | Shah Burj and adjoining buildings | " |
| 312 | " | Diwan-i-Amm, from S.W. | $12 \times 10$ |
| 313 | " | Diwan-i-Amm, throne room, interior | $8\frac{1}{2} \times 6\frac{1}{2}$ |
| 314 | " | Palace buildings, from Saman Burj to Shah Jahani Mahall, from south | $12 \times 10$ |
| 315 | " | Jahangiri Mahall, from W. | " |
| 316 | " | " " " | " |
| 317 | " | Jahangiri Mahal, E. façade, S. tower | $8\frac{1}{2} \times 6\frac{1}{2}$ |
| 318 | " | Jodh Bai's palace, outer court, N. wing | " |
| 319 | " | Moti Masjid and adjoining buildings, from the roof of the Diwan-i-Amm | " |
| 320 | " | Moti Masjid, detail view, from inside | " |
| 321 | " | Salimgarh, general view | " |

## APPENDIX E.

*Report of the Archæological Section Indian Museum, for the year ending 31st March 1920.*

*Establishment.*—Professor D. R. Bhandarkar, M.A., remained my deputy holding charge of the Archæological Section throughout the year. There was no change in the personnel of the office staff.

*Leave.*—Maulvi A. M. J. Muhammad, Assistant Curator, was on privilege leave from the 2nd March.

*Library.*—One hundred and sixty-two books, including the numbers of the various journals subscribed to, were added to the Library. Some were, of course, received as presentations.

*Photographs.*—Seven hundred and seventy-three photographs were received during the year from the different Circles of the Archæological Survey including the Director-General of Archæology in India. Nearly one thousand seven hundred and eight photographs have been mounted in the albums by Munshi Wahiduddin Ahmad, Markman.

*Galleries.*—Pandit B. B. Bidyabinod, Assistant Curator, continued to be the Guide as usual.

*Coins and Coin-room.*—Professor D. R. Bhandarkar, M.A., continued to be in charge of Coins and Coin-room.

Under instructions from Professor Bhandarkar, Pandit B. B. Bidyabinod, Assistant Curator, sorted, classified, listed and arranged in the cabinets in the proper way more than two thousand Pre-Muhammadan coins, out of old and new acquisitions.

*Publications.*—The following valuable contributions were published this year in regard to Archæology, Iconography and Numismatics by the members of this Section :—

(*a*) The Archæological Remains and Excavations at Nagari, by Professor D. R. Bhandarkar, M.A., Officer-in-Charge.

(*b*) Varieties of the Vishnu Image, by Pandit B. B. Bidyabinod, Assistant Curator.

(*c*) A descriptive list of Pre-Muhammadan Coins in the Indian Museum Coin Cabinet, by Pandit B. B. Bidyabinod, Assistant Curator.

The last one has not yet been out but is in the Press and the former two have been published as Memoirs of the Archæological Survey of India under Nos. 4 and 2 respectively.

*New Acquisitions.*—(*i*) Through the favour of the Board of the Trustees, Indian Museum, I received the following four gifts of Her Royal Highness the Princess Mary for exhibition in my gallery :—

One Embossed Brass-box.

One Bullet Pencil Case.

One New Year Card.

One small Photo of Her Royal Highness Princess Mary.

(*ii*) Two Treasure Trove Gold Rings found at Shahzadpur, Pabna, presented by the Government of Bengal.

(*iii*) One Iron Fire-arm 3′ 5¾″ × 1″ found at Rājnagar, Sylhet, presented by the Assistant Commissioner.

(*iv*) Two Copper-plate inscriptions of Kālachuri Someśvara and Kadamba Shashtṭhīdeva II, respectively, purchased.

(*v*) *Coins.*—Altogether 248 coins were added to the Coin Cabinet—8 Gold, 182 Silver and 58 Copper. Out of these 31 coins were purchased and the rest received as presentation from the following donors :—

(*i*) Bombay Branch Royal Asiatic Society.

(*ii*) Director of Agriculture, Central Provinces.

(*iii*) Government of Bengal.

APPENDIX E—*contd.*

(iv) Government of Bihar and Orissa.

(v) Government of United Provinces.

(vi) Khan Sahib M. B. Raghuni of Indore.

A classified list of these coins added to the cabinet is given below :—

| Class. | | Gold. | Silver. | Copper. |
|---|---|---|---|---|
| Pre-Muhammadan. | Punch-marked | ... | 12 | 14 |
| | Indo-Greek | ... | 20 | ... |
| | Parthian—Tetradrachm | ... | 2 | ... |
| | Mediæval Indo-Sassanian Eastern or Magadha type | ... | 4 | ... |
| | Tribal—Mālava | ... | ... | 1 |
| | North-Indian cast | ... | ... | 19 |
| | South Indian | 6 | ... | ... |
| Muhammadan | | 2 | 135 | 24 |
| | TOTAL | 8 | 182 | 58 |

JOHN MARSHALL,

*Director-General of Archæology in India.*

SGPI—M—X 3-76—17-10-1922.

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
8, HASTINGS STREET

a. CHUNAR: TOMB OF IFTIKHAR KHAN, UNDER REPAIR.

b. HASAN ABDAL: HAKIM'S TOMB AND ADJACENT TANK, BEFORE REPAIR.

a. Delhi: Shrine of Nizam-ud-Din Auliya, after conservation.

b. Qutb, Delhi: Sanderson Memorial Sundial.

PLATE III.



*a.* CHAMPANER: LILA GUMBAZ, VIEW FROM S. E., BEFORE REPAIR.



*b.* CHAMPANER: LILA GUMBAZ VIEW FROM N. W., BEFORE REPAIR.



*c.* CHAMPANER: LILA GUMBAZ, VIEW FROM N. E., AFTER REPAIR.



*d.* CHAMPANER: LILA GUMBAZ, FROM S. W., DURING REPAIR.

Photo-engraved & printed at the Offices of the Survey of India, Calcutta, 1922.



(a). BILHARI: VISHNU VARAHA TEMPLE, VIEW FROM EAST.



(b). KONARABARI, DAMOH DISTRICT: BRAHMANICAL TEMPLE, FROM S.E.

Photo-engraved & printed at the Offices of the Survey of India, Calcutta, [illegible]



BALAPUR, AKOLA DISTT: VIEW OF FORT FROM S.W.



*a.* GINGEE FORT: KRISHNAGIRI HILL.

*b.* GINGEE FORT: VIEW OF FORTIFICATIONS FROM KRISHNAGIRI HILL.




*a.* VIRINCHIPURAM: MARGASAHESVARA TEMPLE, KALYANA MANDAPA.

*b.* MANDALAY, BURMA. THUDAMA ZAYAT.



3



1



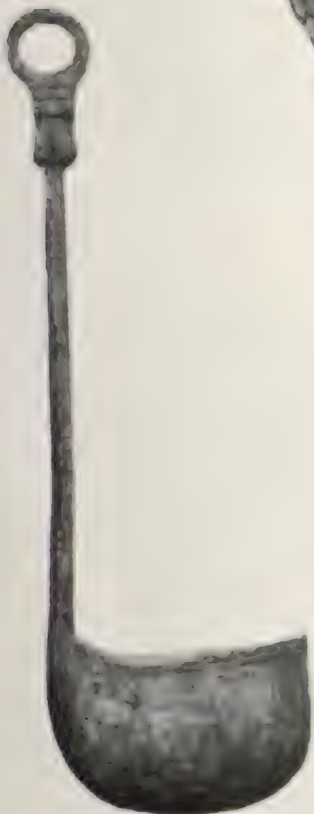
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4



5



6



7



8



9

TAXILA EXCAVATIONS: SILVER DISH AND OTHER OBJECTS FROM SIRKAP.



1



3



2

EXCAVATIONS AT TAXILA: GANDHĀRA STATUETTE AND GLASS FLASK FROM SIRKAP.




EXCAVATIONS AT TAXILA: MISCELLANEOUS ANTIQUITIES FROM SIRKAP.

Photo-engraved & Printed at the Offices of the Survey of India, Calcutta, 1922.

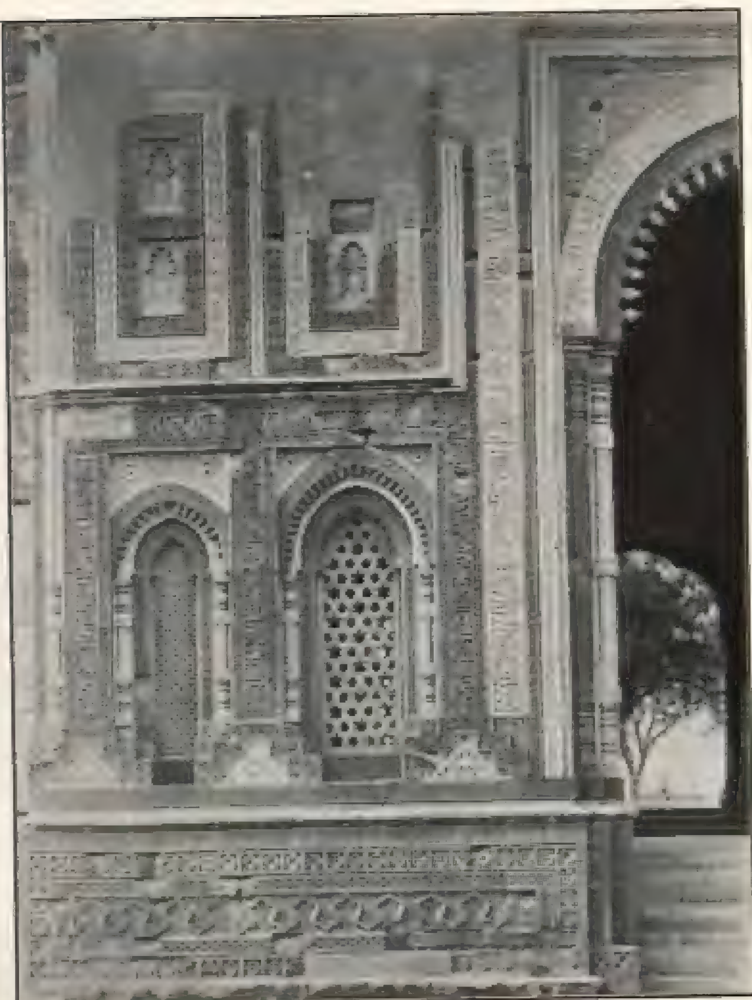



EXCAVATIONS AT TAXILA: GEMS AND MISCELLANEOUS OBJECTS FROM THE BHIR MOUND.

Photo-engraved & printed at the Offices of the Survey of India, Calcutta, 1922



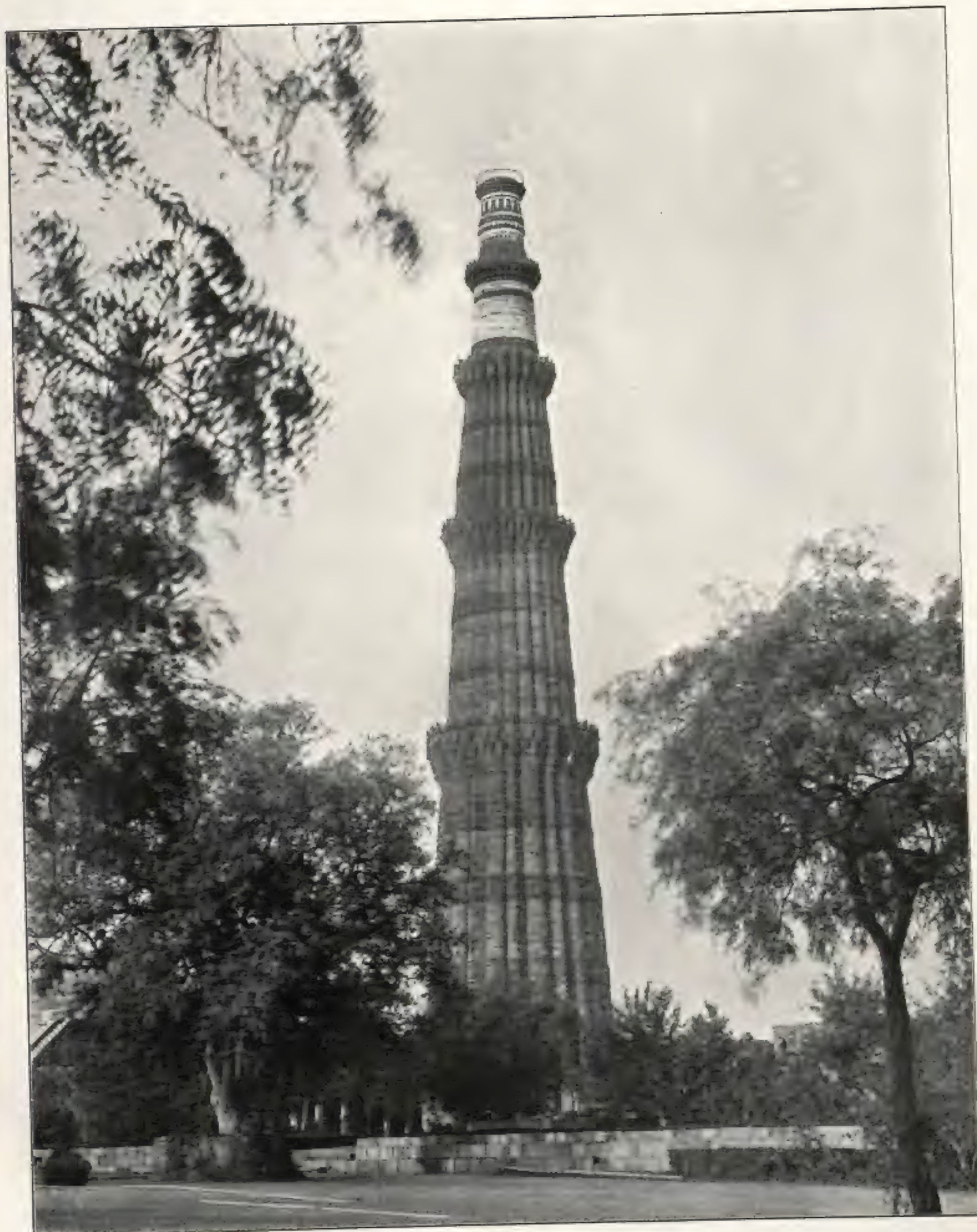
*a.* QUTB, DELHI: ALAI DARWAZA, SHOWING SQUARE OUTLINE OF PARAPET AS REPAIRED BY MAJOR SMITH R.E. ABOUT 1828. IN THE ORIGINAL DESIGN THE CENTRE BAY WAS STEPPED UP.



*b.* QUTB, DELHI: ALAI DARWAZA: DETAIL OF MARBLE PANELLING.



*c.* QUTB MINAR: ENTRANCE DOORWAY, SHOWING ORIGINAL *Kangras* SIMILAR TO CONTEMPORARY CAIRENE EXAMPLES. WRONGLY THOUGHT BY FERGUSSON AND CUNNINGHAM TO BE AN INNOVATION BY MAJOR SMITH.



QUTB MINAR, AS SEEN FROM ENTRANCE TO QUTB ENCLOSURE.

Photo-engraved & printed at the Offices of the Survey of India, Calcutta, [illegible]



*a.* KOTILA OF FEROZ SHAH: DELHI. MAIN ENTRANCE BAY FROM WEST. COMPARE WITH BETTER PRESERVED CONTEMPORARY ENTRANCE GATE OF QADAM SHARIF, DELHI (FIG. *b*).



*b.* QADAM SHARIF, DELHI.



a. KOTILA OF FEROZ SHAH. DELHI. CRUDE FORM OF PEBBLE MOSAIC ON ROOF OF ZENANA PALACE ON RIVER FRONT.



b. SARNATH. FLIGHT OF STONE-STEPS LEADING TO UNDERGROUND PASSAGE.

a. TALBAHAT, JHANSI DISTRICT. MAHRATTA FORT.

b. TALBAHAT, JHANSI DISTRICT. PALACE BUILDING IN MAHRATTA FORT.



*a.* MATHURA MUSEUM: HEADLESS INSCRIBED IMAGE OF BUDDHA OF KUSHAN YEAR 22.





*c.* THREE GANDHARA SCULPTURES SAID TO HAVE BEEN FOUND AT MADHUBAN AND MAHOLI, NEAR MATHURA.



*b.* MATHURA MUSEUM: PEDESTAL OF IMAGE OF BODHISATTVA OF THE KUSHAN YEAR 20.



*d.* CROSS-BAR OF BUDDHIST RAILING FROM GAYATI TILA, MATHURA.

PLATE XVIII.



SHOLAPUR: GENERAL VIEW OF UNDERGROUND TEMPLE, SHOWING SECRET CHAMBER.

Photo.-engraved & printed at the Offices of the Survey of India, Calcutta, [illegible]



*a.* SHOLAPUR FORT. UNDERGROUND TEMPLE BEFORE EXCAVATION.



*b.* SHOLAPUR FORT. ENLARGED VIEW OF THE UNDERGROUND TEMPLE IN FORT, AFTER PARTIAL EXCAVATION.



*a.* NALANDA. MAIN STUPA WITH SUBSIDIARY STUPAS EXCAVATED ON ITS SOUTH SIDE.



*b.* NALANDA. STATUE OF NAGARJUNA(?)



*c.* NALANDA. STATUE OF KOTESRI(?)

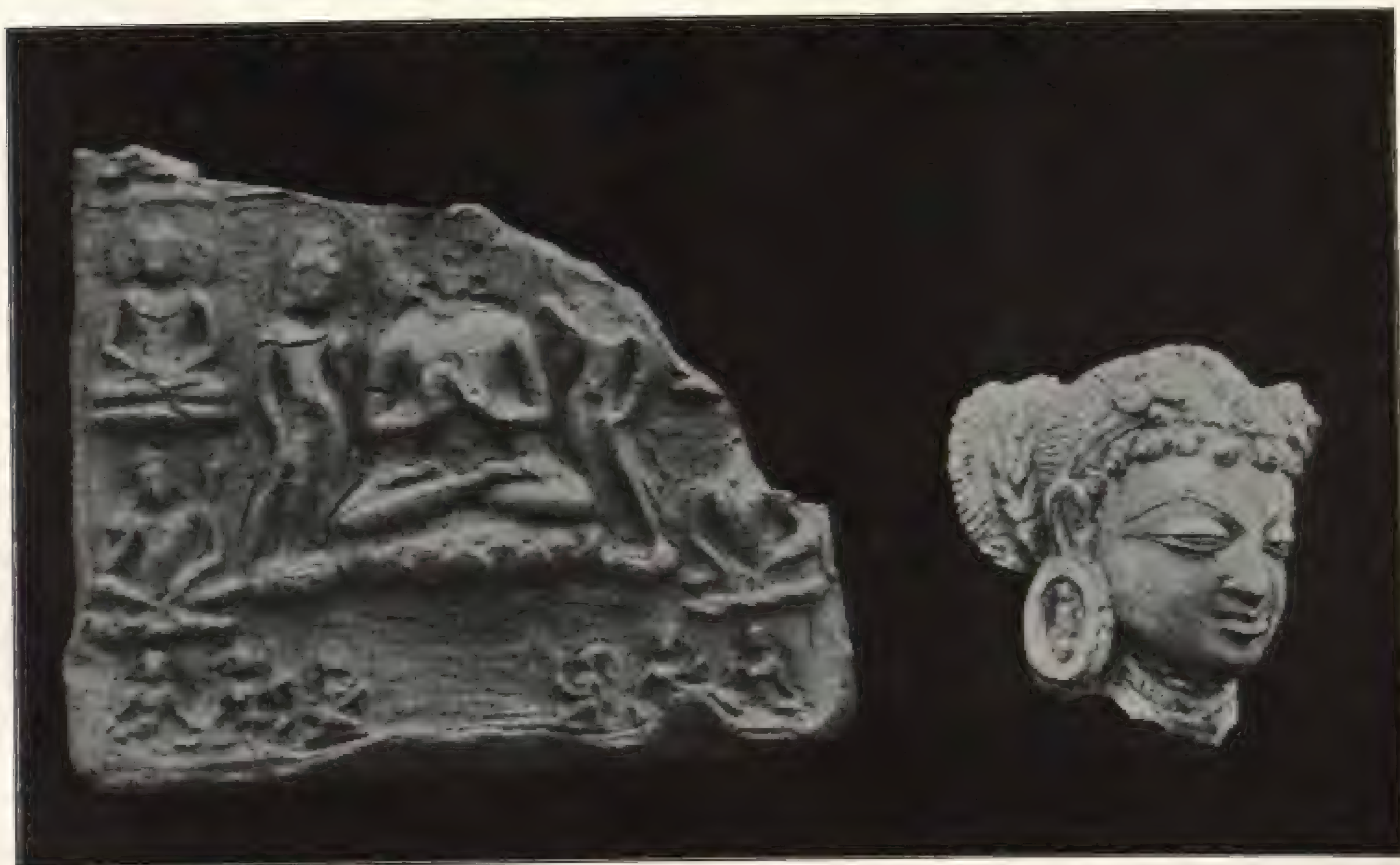
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*a.* NALANDA. FIGURE OF MAITREYA.



*b.* NALANDA. VAJRAPANI (?)



*c.* NALANDA. TERRACOTTA TABLET WITH BUDDHA AND BODHISATTVAS.

*d.* NALANDA. FEMALE HEAD IN RED SANDSTONE.



*a.* UNDAVALI, GUNTUR DISTRICT: CAVE TEMPLE.




*b.* MOGALRAJAPURAM: TRIPLE-CELLED SIVA TEMPLE. GENERAL VIEW.



b. GHANTASALA: BUDDHIST RELIEF.

a. SALIHUNDAM: FIGURE OF MARICI.

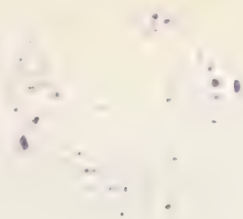


PLATE XXIV.





a. TAKHT-I-BAHI GANDHARA RELIEF.





b. PESHAWAR MUSEUM: GOLDEN DEER.





c. PESHAWAR MUSEUM: GOLDEN BRACELET.